If you don't like them by now – what makes you like them next year?

Social-cognitive and social predictors of prejudice in school children in a two-wave longitudinal study

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1. Introduction

Almost every fifth person living in Germany has an immigration background (Statistisches Bundesamt, 2007). German schools – at least in the Western part of Germany – are becoming increasingly heterogeneous. On the one hand, ethnically diverse schools can provide possibilities for intergroup contact which might foster unprejudiced intergroup attitudes. On the other hand, intergroup prejudice might lead to conflicts between pupils of different cultural background in ethnically diverse schools.

The societal discourse in Germany on immigration often focuses on a postulated lack of integration on the immigrants' side. This was for example the case when Germany's unsatisfying results in the international school performance comparison study PISA were discussed. As the psychologist and journalist Mark Terkessidis criticised, immigrant children were repeatedly blamed for these results and immigrant parents were said to give too little support to their children (http://www.spiegel.de/schulspiegel/wissen/0,1518,521192,00.html; December, 5th, 2007). In contrast, experts like Professor Petra Stanat hold the German immigration politics accountable for the fact that children with an immigration background were more than two school years behind their non-immigrant peers in the PISA study in Germany (http://www.spiegel.de/schulspiegel/wissen/0,1518,521334,00.html; December, 6th, 2007). Professor Stanat criticised that immigrant children do not get enough assistance with learning German from schools and that teachers often are reluctant to recommend students with an immigrant background for higher education even if they recommend German students with comparable performances. The societal discourse does not contain the question if German teachers and school students without immigration background foster or hinder immigrant children's integration.

One factor interfering with a successful integration of immigrant children into the society might be prejudiced attitudes in their non-immigrant peers. Prejudiced statements or jokes

are likely to impair immigrant children's well-being and success in school. They are also likely to result in a negative or even hostile school climate as well as intergroup conflict. But even though prejudice in school children might be highly problematic, prejudice in elementary school students and pre-adolescent school students in Germany has seldom been studied. A search for literature in psychological data bases with keywords like prejudice (Vorurteile), xenophobia (Fremdenfeindlichkeit) or racism (Rassismus) provided 55 studies with 14- to 18-year-old students between 1989 and 2003 but only one study with elementary school children.

The present study focuses on intergroup attitudes in school children without immigration background who are 8 to 13 years old. Different theoretical approaches to prejudice acquisition and development are discussed and integrated. Then relevant empirical studies are summarised and hypotheses about potential factors of influence on prejudice in children are deduced. Before the two manuscripts are presented, there is a short description of the questionnaire development and the two data collections. Manuscript 1 compares general cognitive, social-cognitive, and social factors of influence on prejudice in children in a cross-sectional analysis. Manuscript 2 studies potential causal effects of ingroup identification, social norms, and intergroup contact on prejudice in children with a cross-lagged design and variables potentially mediating the assumed relations. In the general discussion, the results and their possible implications for prevention and intervention are considered.

2. Prejudice in children – definition, theories, and relevant empirical studies so far

There are two important questions with regard to the study of prejudice in children:

- Can definitions of prejudice typically used in studies with adults be applied to prejudice in children?
- Does prejudice occur in children at all?

There is no consensus in social psychological literature how prejudice in adults is defined. For example, Gordon W. Allport (1954) and Rupert Brown (1995) focus different aspects and characteristics in their definitions of prejudice:

Allport (1954) defined ethnic prejudice as

> *"an antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole or toward an individual because he is a member of that group."* (p. 9).

According to Allport, prejudice is a negative emotional reaction to groups or individuals based on their group membership. These negative emotional reactions are based on flawed generalizations of negative experiences or information to the whole group which will not be changed easily by new information. Prejudice is distinguished from misconceptions which will be revised if correct information is provided and from rational judgements which are based on reliable information. Allport admitted that it is difficult to decide which of these three forms of information processing is given in a specific case. He justified the exclusive focus on negative prejudice with his observation that more negative than positive attributes are used to characterise outgroups.

Brown (1995) criticised the use of flawed information processing in definitions of prejudice because the appropriateness or correctness of beliefs and assumptions can not be tested in most cases in the social domain. Brown provided an alternative definition of prejudice as

> "*the holding of derogatory social attitudes or cognitive beliefs, the expression of negative affect, or the display of hostile or discriminatory behaviour towards members of a group on account of their membership of that group.*" (p. 8).

Brown explicitly included emotions and behaviour instead of focussing exclusively on purely cognitive aspects like beliefs and attitudes. According to Brown, prejudice can typically be regarded as socially shared orientations that are affected by intergroup relations.

In her book on prejudice development, Aboud (1988) defined prejudice as

> "*an organized predisposition to respond in an unfavourable manner toward people from an ethnic group because of their ethnic affiliation*" (p. 4).

Similar to Allport and Brown, Aboud focused on negative prejudice. According to her, prejudice implies evaluative ascriptions applied to all members of a group. The behavioural aspect (discrimination) is not included in Aboud's definition, i.e. contrary to Brown, Aboud focused on cognitive and emotional reactions to members of an ethnic outgroup and excluded behavioural reactions. In her concept, discrimination is a consequence and not a component of prejudice. The difference between Aboud's definition of prejudice and definitions of prejudice in theories about adults is not more pronounced than the differences between definitions of prejudice in adults provided by different authors.

In the present thesis, ethnic prejudice will be defined as

> *a predisposition to respond with derogatory social attitudes, unfavourable beliefs, general negative affect, or specific intergroup emotions toward an ethnic group or individual members of an ethnic group because of their group membership.*

The most important aspect of prejudice is that individuals are evaluated in a negative way because of their group membership. A person is evaluated based on the group he or she belongs to and not based on individual characteristics or behaviour. Attributes ascribed to a

group and affective reactions aroused by and associated with the group are transferred to individual group members.

The evaluative component might be more important than the negative valence, but there are some reasons supporting the focus on negative prejudice: Negative but not positive prejudice is likely to result in intergroup conflict and negative prejudice is more likely to affect the members of the target group in a negative way. In addition, the negative valence of prejudiced attitudes seems to be the one aspect most researchers consent with.

One important reason to study intergroup prejudice is to predict intergroup behaviour. Therefore it is important to disentangle the behavioural aspect from cognitive and emotional responses toward groups an individual does not belong to. The defectiveness of the negative cognitive or affective reactions to a group should not be included in definitions of prejudice because there are no objective criteria to evaluate correctness or faultiness of these reactions.

Even though similar definitions of prejudice can be used in children, adolescents, and adults, there are several important differences between prejudice in children compared to prejudice in adolescents and adults (Aboud, 2005; Aboud & Amato, 2001): Adolescents and adults tend to show prejudice in the form of anger, hostility, teasing and mockery. In children, prejudice typically manifests in the form of distrust, fear, disapproval, avoidance based on negative expectations for intergroup interactions, social exclusion, or negative evaluations. Consistencies between attitudes and behaviour are less common in children because of a higher susceptibility for concrete situational aspects and the lower sophistication of cognitive and attitudinal systems. Additionally, prejudice, stereotypes (i.e. beliefs about a group's characteristics), and discrimination (i.e. behavioural reactions to members of other groups) do not develop simultaneously. Friendship selection for example typically does not depend on intergroup attitudes before middle childhood. With regard to apparent intergroup conflict among children, Aboud and Amato point out that intragroup conflict is more common than

intergroup conflict in children and that there are usually aggressive individuals behind scenes of conflict.

In addition, Aboud (1988) distinguished several components of prejudice which are acquired at different times in development: Young children already show preferences, evaluations, and affective reactions regarding ethnic groups. In contrast, attitudes based on strongly generalized ethnic categories and labels, which are typical in adults, develop comparably late in childhood. First, children realize that their society distinguishes several ethnic groups (simple, perception-based forms of ethnic awareness). Up to the age of 4 or 5 years children might have negative views about certain groups without clear conceptions about these groups. But as the young child typically does not know the stereotypes associated to certain groups and is not able to recognize members of the group, these negative views can not be called prejudice. Later in development children learn to categorize individuals into one of the social categories based on perceivable attributes and to label them accordingly. Ethnic self-identification is the *"perceptually and cognitive based knowledge that one is a member of a particular ethnic group"* (Aboud, 1988; p. 7). As a first step, children learn which ethnic attributes describe their own group membership (label, characteristics). In a second step, they assume that certain attributes not only describe their ethnic ingroup but define it and distinguish it from other groups. As soon as children have acquired basic forms of ethnic awareness and ethnic self-identification, one can assume that they also show basic forms of ethnic attitudes. Prejudice equivalent to prejudice in adults is not found in children before children's categorizations are based on cognitive processes of generalisation and categorisation instead of observation and perception and before children acquire *ethnic constancy*, the realization that ethnic group membership is constant over time and context and can not be changed by clothing or wishful thinking.

There are a number of theories which include assumptions when in childhood prejudice equivalent to prejudice in adults will first occur and which factors lead to the development of prejudiced or tolerant attitudes. These theories will be summarised and integrated in the following paragraphs in order to provide the general theoretical background from which the research questions were derived. Each of the two manuscripts focuses on certain aspects of the general research questions.

2.1 Theory of prejudice acquisition (Allport, 1954)

Allport (1954) was one of the first who theorized about prejudice acquisition in children. He assumed that prejudice is learned and that parental attitudes and children's identification with their parents play an important role in the acquisition of prejudice. According to Allport, prejudice can be absorbed directly from parents by perceiving and adopting parents' verbal and non-verbal expressions or fostered by parenting behaviour characterized by strict, hierarchic, and rigid parent-child relations. Whereas children in families characterised by inconsistent, overly strict, or indifferent parental behaviour are supposed to learn a hierarchic world view (focussing on obedience, power, and authority), children in caring, accepting parent-child relations are supposed to develop trust and tolerance.

Prejudice development starts with becoming aware of the existence of social groups and differences between these groups in society (Allport, 1954). Perceived differences (e.g. skin colour) will be recognised by the age of approximately 2 ½ years. These will result in curiosity and interest instead of rejection or anxiety unless they are associated with evaluative attributes (e.g. dirty). According to Allport, preschoolers already acquire derogative labels for certain ethnic groups without really understanding their meaning or being able to indicate targets or target groups. But they realize that these labels are strongly emotion-laden and sometimes use them to express specific emotions or to prompt certain

reactions. Allport suggested a model of prejudice development with two stages and several sub-stages (see table 1).

Allport is a representative of the Social Reflection Theory approach. This approach explains why some groups are targets of prejudice whereas others are not: Target groups of prejudice and derogation typically are those groups with low status or power or those in direct competition or conflict with the ingroup. Negative experiences are associated with the characteristics of a certain group. Therefore these characteristics arouse fear. Selective perception of information confirming own prejudice leads to consistent systems of attitudes. In addition, members of higher status categories tend to feel superior to lower status groups – especially if their self-esteem is threatened by an individual or group. The theory does not offer explanations for inter-individual differences in prejudice and age-related changes (see also Aboud, 1988).

Table 1. Model of prejudice development by Allport (1954).

Stage	**Substage**	**Characteristics**
"pregeneralized learning" (characterised by highly context specific information processing and self-categorisation)	1	The child identifies with its parents and wants to gain their approval and affection.
	2	If the child's parents are strict, hierarchy-oriented, criticizing, or neglecting, the child will learn caution in interactions and that power and hierarchy are important.
	3	The child realizes that society categorizes people into different groups and that group membership is associated with evaluations.
	4	Once the child has learned the linguistic labels of different groups and realized that certain groups are rejected by its parents, the child develops negative emotions toward these groups or labels without being able to match individuals with these groups or labels.
Stage 2: Children use categories in the same way as adults do and are able to decide who belongs to which social category.	1	"Period of total rejection": Members of rejected social categories evoke negative emotions and are described with negative attributes. Interactions are limited to ingroup members. (Not reached before the age of 7 or 8 years; many do not reach it before adolescence.)
	2	"Differentiation": Adolescents first show verbal acceptance and then more tolerant behaviour – not all members of disliked groups are rejected and outgroups are described in positive and negative terms instead of purely negative. (Reached with approximately 12 years.)

2.2 The Social-Cognitive Developmental Theory of Prejudice (Aboud, 1988)

Based on the observation that the mean level of prejudice in adults but not in children between 4 and 7 years declined in empirical studies from the 1940s to the 1980s, Aboud (1988) assumed that cognitive developmental factors are most important for the development of prejudice in children. Her *Social-Cognitive Developmental Theory* (SCDT) contains the core assumption that changes in cognitive structure predict non-gradual changes in the level of prejudice (p. 22). Cognitive limitations in the developing child determine the structure of attitudes. Environmental inputs affect attitude content. In addition, cognitive limitations filter and distort environmental input. Aboud's characterisation of cognitive development in children is based on the ideas of Jean Piaget.

> **Excursus: The Theory of Cognitive Development by Jean Piaget**
>
> The theory of cognitive stages assumes that the development of structures has to be distinguished from the acquisition of specific contents through learning (Piaget, 1988, 1995). Each new stage is build upon the one before. While acceleration and deceleration are possible based on experiences or adult intervention, the theory excludes changes in the order of the stages. Development takes place through the processes *assimilation* (integration of new elements into the cognitive structures) and *accomodation* (modification of existing cognitive structures).
>
> The *sensorimotor stage* (0 - 1 ½ years) is subdivided into a period focusing on the own body (until 7th or 9th month) and a period of practical intelligence with adjustment to conditions of space (Piaget, 1988).
>
> The *preoperational stage* (approximately 1½ or 2 years to 6 or 7 years) is characterized by the acquisition of language, internal representations, and images, and by a lack of reversibility and conservation (Piaget, 1988). Children

understand the environment with the help of perception-based or imaginative rules (Piaget & Inhelder, 1977). Their concept of causality is based on the perceived causality of own action. Young children show a kind of pre-causality: They assume that everything is goal-oriented and purposive (integral finalism) and they see everything that moves as alive and conscious, e.g. the sun knows it moves over the sky (animism).

During the *concrete operational stage* (7 or 8 years to 10 or 11 years), children acquire concrete, object-bound operations (Piaget, 1988). Concrete operations are categories (simple or multiple sorting of objects into classes), relations (association, dissociation), numbers, and seriation (sorting of objects according to an attribute like size). Children begin to show complete reversibility, i.e. they understand that each current state is the result of preceding transformations (Piaget & Inhelder, 1977). The concept of *conservation* is acquired with about 7 or 8 years (Piaget & Inhelder, 1980). For example water put in differently shaped glasses is recognized as being the same amount of water by 7- or 8-year-olds. In contrast, children between 4 and 6 years focus on the water level and forget about the shape and the obvious transformation. *Operative seriation* is used from about 7 or 8 years on, i.e. children systematically compare two elements at a time to start with the smallest and then search for the second smallest. Before that, children group pairs and little groups of elements that are not coordinated and later try to order elements by trial and error. *Operative classification* in the sense of an understanding of hierarchical classes, e.g. knowledge that there are more flowers than primroses, occurs from about 7 or 8 years on. As new concrete operations acquired in one domain or subject matter can not directly be generalized to other subject matters, long delays between the structuring of one

subject matter (e.g. lengths) and the subsequent structuring of a new subject matter (e.g. weights) are possible.

In the *formal operational stage* (11 to 13 years) ordered operations (implications, incompatibility, disjunction, inversion, and reciprocity), combinatorics, and reversibility are acquired (Piaget, 1988). The main characteristic of formal operative thinking is the new role of hypothetic and possible outcomes instead of a focus on real factual entities (Piaget & Inhelder, 1977). Factual conditions are now seen as the actual outcomes of transformations out of a bunch of hypothetical other transformations that would have led to another condition. The real is seen as a special case of the possible. Formal operative thinking is hypothetical-deductive. The adolescent is able to combine different cognitive operations and use different cognitive structures simultaneously to solve verbal, experimental, or real world problems. Important for the newly acquired cognitive abilities is also the higher language competence of adolescents.

Four aspects affect child development (Piaget, 1988; Piaget & Inhelder, 1980): maturation (e.g. formation of new neuronal links) as a necessary but not sufficient condition, experiences and practice, social environment (socialization, education, and upbringing), and self-regulation (active role). Development is characterized by a parallel development of cognitive and affective behaviour (Piaget, 1995). Affectivity serves as an energetic source. Motives, interest, and evaluations affect perceptions, focus of attention, and selection of details.

The model of Piaget has been criticised by a number of developmental psychologists. Today there seems to be a consensus that cognitive development is domain specific – different developmental patterns can be found in different realms of cognition (Callaghan, 2005; Keil, 1999; Schneider, Bullock, & Sodian,

1998). Domains are areas of knowledge virtually every person masters (numbers, physical object mechanics, biology, folk psychology) whereas local areas of expertise (e.g. comic heroes) are characterised by strong differences between novices and experts. Domain-specific expertise models assume that high levels of practice in a certain domain lead to local high competence in this domain. Biological preparedness and innate learning mechanisms seem to play a role as well.

As a further mismatch to Piaget's model, development from the abstract to the concrete seems more likely than development from the concrete to the abstract (Keil, 1999). For example, preschoolers have a general idea how things work (spread of diseases, inheriting properties) but lack the detailed process information. Language acquisition typically moves from abstract (dog) to concrete (poodle). Empirical results indicate that development goes from particular insights to an integrated general structure or system (Schröder, 1989).

In addition, experiments (e.g. with dishabituation paradigms) show that children seem to understand many aspects of their physical and social world much earlier than Piaget assumed – e.g. even infants seem to understand spatial-temporal continuity of physical objects (Keil, 1999; Schneider, Bullock, & Sodian, 1998). Children typically solve tasks correctly long before they are able to explicitly give reasons for their responses (Keil, 1999; Schröder, 1989).

Children's performance in tasks meant to assess their cognitive development seems to depend on other variables besides cognitive stages or domain specific developments as well: The percentage of people reaching formal operational stage depends strongly on the criteria and measures used (Rice, 2001). As children can not solve problems before they are able to keep all relevant

information in mind, memory development affects other areas of cognitive development (Rice, 2001). With regard to the relationship of intelligence and cognitive development, all else being equal individuals with a high IQ are likely to enter formal operational stage sooner than others (age x intelligence interaction). In the LOGIK-study, psychometric intelligence (IQ) and cognitive development (e.g. conservation of numbers, social perspective taking, and scientific tasks) were assessed longitudinally at the age of 4 and 5 years as well as in grades 1, 3, 4, and 6 (Schneider, Bullock, & Sodian, 1998). The data gathered in the LOGIK-study showed increasingly close and stable relations (r = .45 to .60) between psychometric intelligence and cognitive development over school age. There were similar correlations for diachronic and synchronic measurements (e.g. HAWIK-IQ $_{\text{grade 1}}$ / scientific thinking $_{\text{grade 6}}$ r = .46; HAWIK-IQ $_{\text{grade 6}}$ / scientific thinking $_{\text{grade 6}}$ r = .46). Children's cognitive abilities seem to be characterized by a bunch of basic ability components instead of stage-specific deficits and competencies.

Despite the empirically supported criticism at Piaget's model, the model still defines contemporary researchers' view of development (Callaghan, 2005) and still is a useful instrument for interpreting the enormous changes in children's development especially in early childhood (Schneider, Bullock, and Sodian, 1998, p. 58). Schröder (1989) assumed that developmental psychological studies will have to continue to rely on Piaget's formal-logic system as he sees no practicable alternative (p. 50). He also reported empirical support for Piaget's assumption that the acquisition of concrete operations is a necessary precondition for the acquisition of formal operations.

The SCDT by Aboud (1988) assumes that the cognitive abilities which are acquired during the cognitive development described by Piaget affect children's intergroup attitudes. Aboud supposed that prejudice in 4- to 7-year-olds (pre-operational stage) is qualitatively different from prejudice in 7- to 12-year-olds. She introduced two parallel processes: developmental *shifts of focus of attention* and developmental changes in the *processes of information processing* with the highest impact on how the child experiences the world. The present level in these two parallel processes is hypothesized to determine the way the child relates to ethnic groups.

Regarding the processes of information processing, Aboud proposed a development from dominance of affect-based information processing over perception-based to mainly cognitive information processing. In the first stage group membership has no effects because children like those people who satisfy their needs and are afraid of or insecure toward unfamiliar people. In the second stage liking, ethnic self-categorization, and attitudes are based on the similarities between the child and other people with regard to perceivable characteristics (language, skin colour, size, clothing, strength, speediness, etc.). A cognitive understanding of social categories and individual traits comes with the acquisition of concrete operational abilities like multiple classification and perspective taking. Increasing cognitive flexibility allows for more complex views of social categories and relations.

Shifts in focus of attention occur from egocentric focus to socio-centric focus to a focus on individuals. Egocentrism is characterized by being aware of one's own perceptions and preferences only and the expectation that others will share one's views and experiences. Perceptions and preferences different from the own ones are seen as wrong. The acquisition of the concept "group" is fostered by dichotomous perceptions and views: When the child starts to attend to groups, it perceives different groups as being dissimilar to each other. Groups that the child belongs to are liked very much while other groups are liked less

because they are seen as being completely different to the own one. With the increase in cognitive abilities and flexibility the child also realizes that other groups are similar to its own group in many respects. And it starts to see inter-individual differences within groups. This leads to a decrease in prejudice according to Aboud. A further decrease in prejudice is expected when the child uses individual characteristics instead of group membership and stereotypes to decide if an individual is liked or disliked.

Aboud does not assume that the level of prejudice depends directly on the child's cognitive abilities. Instead, cognitive abilities and constraints are supposed to affect prejudice through their application in the social domain. Less prejudiced children are characterized by more *flexible ethnic cognitions*. Flexibility of ethnic cognitions means an understanding that different ethnic groups are similar to each other in many respects and that there are inter-individual differences within ethnic groups. Ethnic cognitions develop as a function of general cognitive development. Based on her review of empirical studies on prejudice in children, Aboud reported that there is typically a high correlation between conservation and flexible ethnic cognitions. Furthermore flexible ethnic cognitions usually increase most following the acquisition of conservation. Thus flexibility can be conceptualized as a concrete operational skill that requires a certain amount of cognitive differentiation and inferential ability. Table 2 summarizes the theory.

Table 2. The Social-Cognitive Developmental Theory of Prejudice by Aboud (1988).

<table>
<tr><th>Age</th><th>Processes dominating the child's experience</th><th>Shifts in focus of attention</th><th>Prejudice</th></tr>
<tr><td>9 or 12 months to 3 years</td><td>Stage 1:
Dominance of affective processes
▪ Group membership is unimportant for prejudice
▪ Unfamiliar appearance or behaviour of strangers arouses insecurity and anxiety
▪ Children like those people satisfying their needs</td><td rowspan="2">Stage 1:
Egocentrism
▪ Child is only aware of its own preferences and perceptions
▪ Child assumes that others perceive, think, and feel the same way that they do
▪ What differs from the child's own perceptions and experiences is seen as wrong</td><td></td></tr>
<tr><td>4 to 7 years</td><td>Stage 2:
Dominance of perceptions
▪ Perceived similarity between the child itself and other people
▪ Children dislikes people dissimilar to itself
▪ Ethnic self-categorization and attitudes are based on perceived characteristics like skin colour, language, clothes</td><td rowspan="2">Manifest prejudice at the age of 4 years

Increase in prejudice from 4 to 7 years of age

Peak at 7</td></tr>
<tr><td></td><td></td><td>Stage 2:
Socio-centric A
▪ Focus is on groups
▪ Other groups are perceived as dissimilar to the child's own group
▪ Exaggeration of contrasts and the pro-anti-dichotomy of attitudes help to understand the concept „group“</td></tr>
</table>

Table 2 (continued). The Social-Cognitive Developmental Theory of Prejudice by Aboud (1988).

Age	**Processes dominating the child's experience**	**Shifts in focus of attention**	**Prejudice**
8 to 10 years	Stage 3: Increasing impact of cognitions ▪ Cognitive understanding of categories and individual traits ▪ Understanding that ethnic membership is based on stable characteristics like ancestry instead of wishes or clothes ▪ Acquired abilities: attend to different dimensions simultaneously; abstract, problem-solving thinking; conclusions about characteristics that are not directly perceivable; reflections about own mental capacities and limitations relative to others; perspective taking	Stage 2: Socio-centric B ▪ Increasing realization of similarities between own and other group and the inter-individual differences within the own group	Decrease in prejudice
10 to 12 years	Stage 3: Strong impact of cognitions ▪ Increasing understanding of internal states ▪ Increase in flexibility of ethnic cognitions	Stage 3: Focus on individuals ▪ Sympathy is based on people's individual characteristics ▪ Ethnic stereotypes are used in cases of a lack of individuating information	Further decrease in prejudice

2. 3 The Social Identity Development Theory (Nesdale, 1999a)

The *Social Identity Development Theory* (SIDT) is a developmental, intergroup approach that assumes four sequential phases varying in social motivations and behaviour (Nesdale, 1999a; Nesdale, Maas, Durkin, & Griffith, 2005). SIDT represents a modification and extension of *Social Identity Theory* (Tajfel & Turner, 1986).

> **Excursus: Social Identity Theory (Tajfel & Turner, 1986)**
>
> In their Social Identity Theory of Intergroup Behaviour (SIT), Tajfel and Turner defined *social identity* as the "aspects of the individual's self-image that derive from the social categories to which he perceives himself as belonging" (p. 283). The core theory consists of three general assumptions and two derived principles:
>
> 1. In order to maintain or enhance their self-esteem individuals strive for a positive self-concept.
> 2. If the socially shared connotations associated with the groups the individual belongs to (*ingroups*) are positive, a positive social identity results. Individuals form a group if they "perceive themselves to be members of the same social category, share some emotional involvement in this common definition of themselves, and achieve some degree of social consensus about the evaluation of their group and of their membership in it" (p. 283).
> 3. Group members compare the ingroup to specific *outgroups* along valued dimensions of attributes and characteristics. If the social comparison favours the ingroup, the ingroup is evaluated positively. A negative discrepancy from the other group results in a negative social identity.
> 4. Individuals strive to achieve or maintain a positive social identity.

5. *Positive distinctiveness* (social comparisons to relevant other groups with favourable results for the ingroup) is the most important source for a positive social identity.

According to SIT, only subjectively identified individuals, who have internalized group membership into their self-concept, show intergroup differentiation. In social situations in which the other group is characterized by similarity, proximity, and / or situational salience, intergroup comparison will take place. Whereas intergroup comparability decreases with perceived intergroup similarity in general, status differences do not reduce the meaningfulness of comparisons if the members of the subordinate group see cognitive alternatives, i.e. they perceive the status difference as changeable. Consensual inferiority will be fought most resolutely if the outgroup's high status is perceived as unstable and illegitimate.

In cases of unsatisfactory social identity, individuals try to switch from their group to a more positive distinct one (*individual mobility*) or to make the actual ingroup more positive distinct. The individualistic approach of individual upward social mobility implies disidentification with the ingroup and does not improve the group's situation. This solution requires the perception that group boundaries are permeable and hinders the mobilization of ingroup members for collective action. Often there are perceived objective, moral, or ideological barriers to leaving the ingroup. In these cases, group members are assumed to choose the strategies *social creativity* (new dimension of comparison, redefining the values assigned to ingroup attributes, select a lower status outgroup as new comparison group) or *direct social competition* (struggle to reverse the relative positions of in- and outgroup). Both collective strategies can have negative consequences for

the group: social creativity can lead to collective repression of objective injustice or to rivalry with other deprived groups; social competition is likely to lead to intergroup conflict with high status groups.

SIT assumes a behavioural continuum with two extreme points: Interpersonal behaviour is the interaction of two or more individuals determined only by interpersonal relationships and individual characteristics. Intergroup behaviour is the interaction of two or more individuals or groups determined only by respective group memberships. While most situations can be located somewhere between the extremes interpersonal and intergroup behaviour, intergroup behaviour is most likely in situations of (intense) intergroup conflict.

Reicher (2004) stressed that social identity is necessarily defined in comparative terms. While dominant groups use intergroup differentiation and social comparison to maintain and create structures of inequality, subordinate groups aim at challenging those structures and create more equitable ones. Therefore, categorization can mirror existing social structures or create new structures (e.g. through collective movements as an active process of constructing social identities). Neither social categories used nor the relations between different social categories are stable over context and time. Individuals will be guided by the norms, values, and beliefs defining a relevant social identity once they behave in terms of this identity.

Brown (2000) emphasized the importance of Social Identity Theory for the study of intergroup processes but also discussed central problems of SIT: He assumed that ingroup identification and the amount of ingroup favouritism should be strongly and positively correlated if favourable intergroup comparison is the main source of a positive social identity. Therefore his observation that most studies do

> not find strong positive correlations and that some even find negative ones, poses a problem for SIT. According to Brown, another empirical phenomenon not in line with SIT is that intergroup bias is typically much stronger in allocations of positive traits, rewards, etc. than in the domain of negative evaluations and behaviour ("*the positive-negative asymmetry phenomenon*"). People seem to favour the ingroup willingly but shy away from outgroup derogation. Actually, these findings do not contradict SIT because SIT focussed on ingroup bias rather than outgroup hate. In contrast, SIDT describes factors which influence if ingroup love switches to outgroup hate or not.

In stage 1 of the SIDT ("undifferentiated"), infants and young children respond to those objects in their environment that catch their attention (Nesdale, 1999a; Nesdale, Maas, Durkin, & Griffith, 2005). Typically, racial cues are not salient to children before the age of 2 or 3 years.

In multi-ethnic societies children reach stage 2 ("ethnic awareness") with approximately 3 years. Children typically do not use or invent idiosyncratic social categories but realize that their social environment is structured into social categories like race or gender. Often they learn to label and identify outgroup members from adults who explain to them that an individual belongs to another group and what is characteristic of this group. Soon after the child realizes that there are different racial or ethnic categories in society, it will become aware of its membership in one of these categories (ethnic self-identification). Virtually all children from dominant ethnic or racial groups in diverse communities seem to be accurate in ethnic self-identification by 6 to 7 years. The developmental processes of minority children or in ethnically homogeneous societies can be slower.

Stage 3 ("ethnic preference") is characterized by focussing on the ingroup instead of the outgroup and on similarity rather than dissimilarity based on ethnic self-identification.

Ethnic self-identification is part of the child's social identity as a member of a specific ethnic group and activates preference for and favouring of the ingroup. The child is concerned for the ingroup and wants it to be positively distinct to other groups. Children prefer to belong to higher status groups (relative superiority of the ingroup) but this does not mean that the outgroup is perceived as inferior. Even though ingroup members are preferred and ingroup norms are important, there is no derogation or dislike of outgroup members. Members of other groups are just liked less than ingroup members. Therefore it is not surprising that children's preference for the ethnic ingroup does not restrain them from having outgroup-friends. In addition, gender is definitely more salient to children than ethnicity and has a much stronger impact on friendship selection up to the age of 10 or 11 years. While dominant group children in multi-ethnic communities typically reach stage 3 by 4 to 5 years, minority children often reject their ethnic ingroup in favour of a culturally dominant outgroup. This shows children's growing understanding of society's social structure and hierarchy, the standing of different groups in this hierarchy, and the intergroup relations. Ethnic self-identification facilitates these processes as well as the acquisition of language used to describe other groups.

Stage 4 ("ethnic prejudice") is characterized by a shift from mere ingroup bias in perceptual, affective, cognitive, and behavioural aspects to disliking or even hating outgroup members. The pure ingroup focus from stage 3 is replaced by an equal focus on ingroup and outgroup or even an obsessive outgroup focus. Stage 4 typically is not reached before the age of 6 or 7 years. While some individuals may never acquire prejudice at all, those who reach stage 4 not only know the negative societal view about ethnic outgroups but hold these views as their own. Prejudiced individuals tend to derogate and discriminate against outgroup members.

SIDT assumes that individuals will acquire ethnic prejudice only under certain circumstances. If individuals do not acquire the concept of *ethnic constancy*, i.e. the understanding that ethnic group membership is stable and does not change with age, they are unlikely to attach negative (or positive) attributes to ethnic groups. The likelihood of prejudice acquisition is also reduced if children develop certain social cognitive abilities like taking the perspective of outgroup members, empathy with outgroup members, and higher level moral reasoning.

The probability of prejudice acquisition increases when prejudice is normative in a given society, i.e. if it is widely shared and unequivocally expressed by community members (*social consensus*). Children adopt attitudes prevailing in their social environment as their own if these attitudes fit with the children's self-perception of belonging to a social group with particular attitudes, beliefs, and behaviours. These are perceived as making the individual group members positive distinct from members of other groups. Children tend to orient by those whom they value and identify with. Competition, tension, and conflict between ethnic groups as well as the feeling that the own group's social standing is threatened by an ethnic outgroup facilitates a shift from ingroup bias to prejudice.

SIDT implies that social identification processes might overwhelm socio-cognitive progress like perspective taking and moral reasoning with regard to strongly disliked outgroups. The strength of social ingroup identification is hypothesised to affect interethnic attitudes in children from 7 years on.

Table 3. The Social Identity Development Theory by Nesdale (1999a).

Stage	**Typical Age**	**Prejudice Level**
Stage 1 (undifferentiated) ▪ racial cues are not salient	infants and young children	⇨ no prejudice
Stage 2 (ethnic awareness) ▪ realize that their social environment is structured into social categories ▪ learn to label and identify group members ▪ become aware of the own group membership (ethnic self-identification)	dominant groups in multi-ethnic societies: • ca. 3 years	⇨ prerequisite of prejudice
Stage 3 (ethnic preference) ▪ strong focus on the ingroup (concern, positive distinctiveness, ingroup norms) ▪ growing understanding of society's social structure and hierarchy	• 4 to 5 years Minority children often favour a dominant group	⇨ preference for the ingroup ⇨ no derogation or dislike of the outgroup
Stage 4 (ethnic prejudice) ▪ equal focus on ingroup and outgroup or obsessive outgroup focus ▪ know and share negative societal view about ethnic outgroups *Facilitating factors:* ethnic constancy, normative prejudice in a society, intergroup competition or conflict, ingroup identification *Protective Factors:* social cognitive abilities (perspective taking, empathy)	• typically not before 6 or 7 years • some individuals do not acquire prejudice at all	⇨ derogation and discrimi-nation against outgroup members

2.4 Integrative theories of prejudice acquisition and development

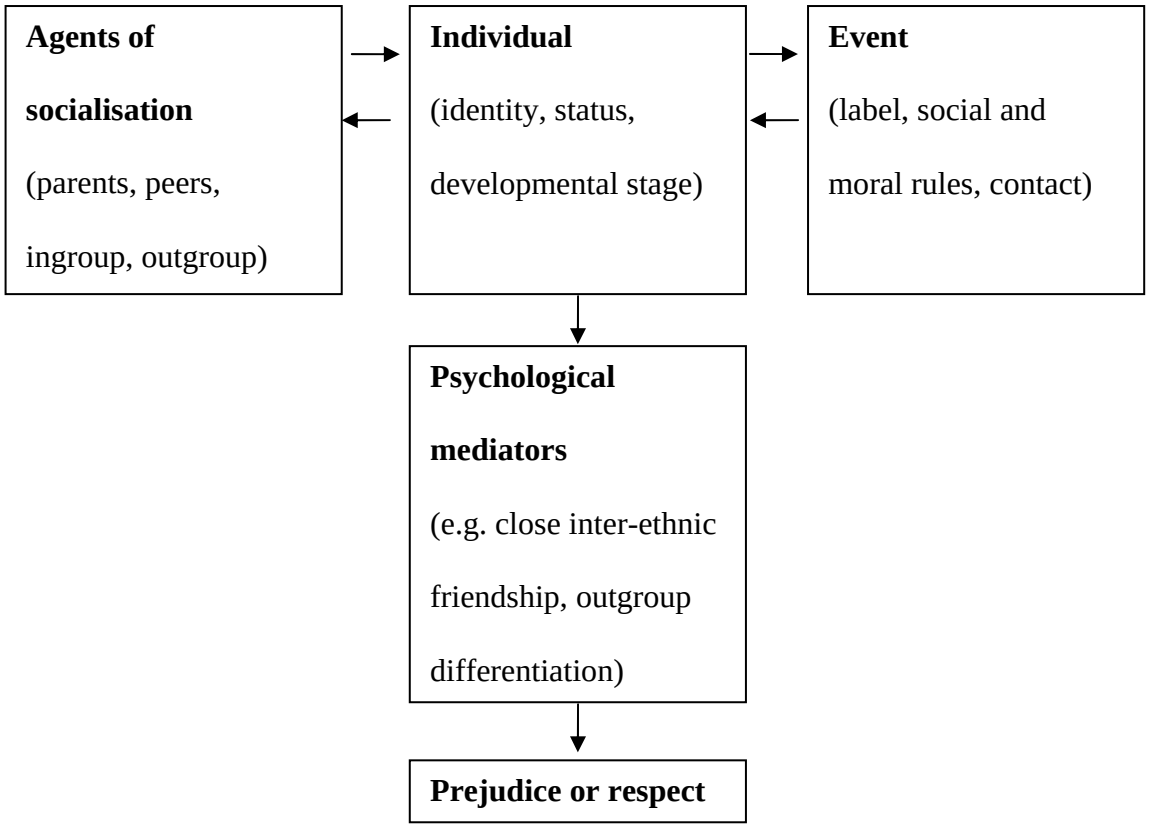
2.4.1 Modification and extension of SCDT

Aboud (1988) complemented her theory with a list of social and psychological determinants of prejudice (e.g. contact, social identity processes, parental education, and societal stratification). The explanatory framework by Aboud and Amato (2001) identifies two important sources of impact on prejudice development: socio-cognitive development (as described in SCDT) and *social influence* (parental and peer socialization, socio-cultural agents like television, or societal heterogeneity / homogeneity). According to this framework, children generalize their positive self-esteem and the positive evaluation of emotionally important people like parents, teachers, and peers to the associated groups. Aboud and Amato emphasized that even though children's motivation to make sense of their social world may lead to stereotyping, prejudice, and discrimination, these phenomena are neither inevitable nor adaptive.

The modification and extension of SCDT by Aboud (2005) contains three general mechanisms of prejudice acquisition: learning, conformity, and contact. Her integrated model of prejudice acquisition and development (see figure 1) assumes bi-directional relations between the individual and agents of socialisation as well as events. Events and agents of socialisation have an impact on the child and this together with developmental processes results in certain intergroup attitudes. Psychological mediators of this relationship are intergroup friendship or outgroup differentiation. Children receive information from different agents of socialization. The most important ones are parents and peers but members of in- and outgroup also provide information. How children respond to this information depends on their cognitive development as well as identity development. According to Aboud, 5-year-olds study their parents' behaviour as well as their social environment in

order to discover social norms and rules. In contrast, adolescents are most strongly influenced by contact with peers and by peer-group norms.

Figure 1. Integrative frame model of prejudice development (adapted from Aboud, 2005, p.319).



2.4.2 Integrative Framework Model by Katz (2003)

Katz (2003) provided a very extensive framework with a broad range of impact factors affecting prejudice acquisition and development in children. Her model starts with historical aspects like a history of slavery or colonialism which might affect contemporary intergroup relations. A second category of influence factors are socio-cultural ones (e.g. ethnocentrism, economic exploitation, economic insecurity, Civil Rights legislation, or differences in socio-economic status). Psychological aspects in the model subsume socialisation, personality, affective aspects, cognitive and perception processes and approaches of evolutionary psychology. The factors from the different levels of the model are assumed to affect

individual behaviour with specific targets of prejudice. Most relevant for the approach presented here are socialisation and cognitive-perceptual aspects. According to Katz, potential agents of socialisation are parents, media, peers, and the social environment. With regard to parental socialisation, intergroup attitudes are affected by direct parental instruction, indirect transmission through imitation, parenting behaviour (e.g. rigidity or focus on obedience), and reinforcement for parentally approved expressions of attitudes. Not only parents but also siblings and peers have an impact on an individual's attitudes according to the framework model. Depending on the group images, stereotypes, and information provided, television programs and children's books can foster positive or negative intergroup attitudes. In addition to socialisation effects, prejudice in children is affected by social identity and social categorisation processes. There is a tendency to favour and like members of social categories the child self-identifies with. Members of outgroups can be treated neutrally or be derogated and disliked. Differences between objects and people belonging to different categories typically are accentuated based on categorisation. The reactions to groups and group members can also depend on the group label. The complete framework helps to organise and keep in mind all kinds of factors that might have an effect on intergroup attitudes. But the model as a whole can not be tested empirically because it is too complex and contains historical and evolutionary assumptions.

2.4.3 Integrative Model of the Formation of Stereotype and Prejudice (Bar-Tal & Teichman, 2005)

The *Integrative Model of the Formation of Stereotype and Prejudice* (Bar-Tal & Teichman, 2005) also consists of a broad range of factors hypothesised to be important for the acquisition and development of stereotype content, attitudes, affect, and emotions related to other groups (see figure 2). These factors include cognitive development (e.g. increasing cognitive and perspective taking capabilities), personality development (e.g. consolidation of

self-identity), socialisation, communication, and the influence of culture and social institutions. Bar-Tal and Teichman emphasise that the development of stereotypes and prejudice about specific outgroups takes place in a particular social intra- and intergroup context. In this context, specific ideas, attitudes, and feelings about groups are shared by ingroup members. Shared attitudes are held with more confidence (*social validation*), are expressed more openly, and are more resistant to change.

According to Bar-Tal and Teichman, the macro-social context is important for attitude acquisition and development because political, social, economic, and cultural conditions as well as the nature and history of intergroup relations lead to specific shared beliefs and attitudes. Cultural, societal, and personal norms of tolerance and their enforcement (e.g. by the formal legal code) can prevent hostile behaviour toward outgroups. Economic hardship and competition among groups in society over scarce resources (e.g. jobs) might foster negative intergroup attitudes. Stereotypes are influenced by a history of hostility or friendship and by major intergroup events. While friendly intergroup relations provide information about positive outgroup characteristics, intergroup conflict leads to the acquisition of negative outgroup stereotypes.

Cultural and educational channels provide information about in- and outgroup. School books, films, newspaper articles, television programs, speeches, theatrical plays, and literature often describe group characteristics directly or provide information that can be used to conclude about group dispositions, attitudes, or intentions. These descriptions are supposed to be most influential if different channels provide a single outgroup image and if the sources are perceived as valid and truthful. For attitude formation in children, educational institutions play a special role as they reach the entire younger generation, are typically perceived as objective, truthful, and factual, and tend to pass on societal traditions and stereotypes about society and groups. Bar-Tal and Teichman assumed that the

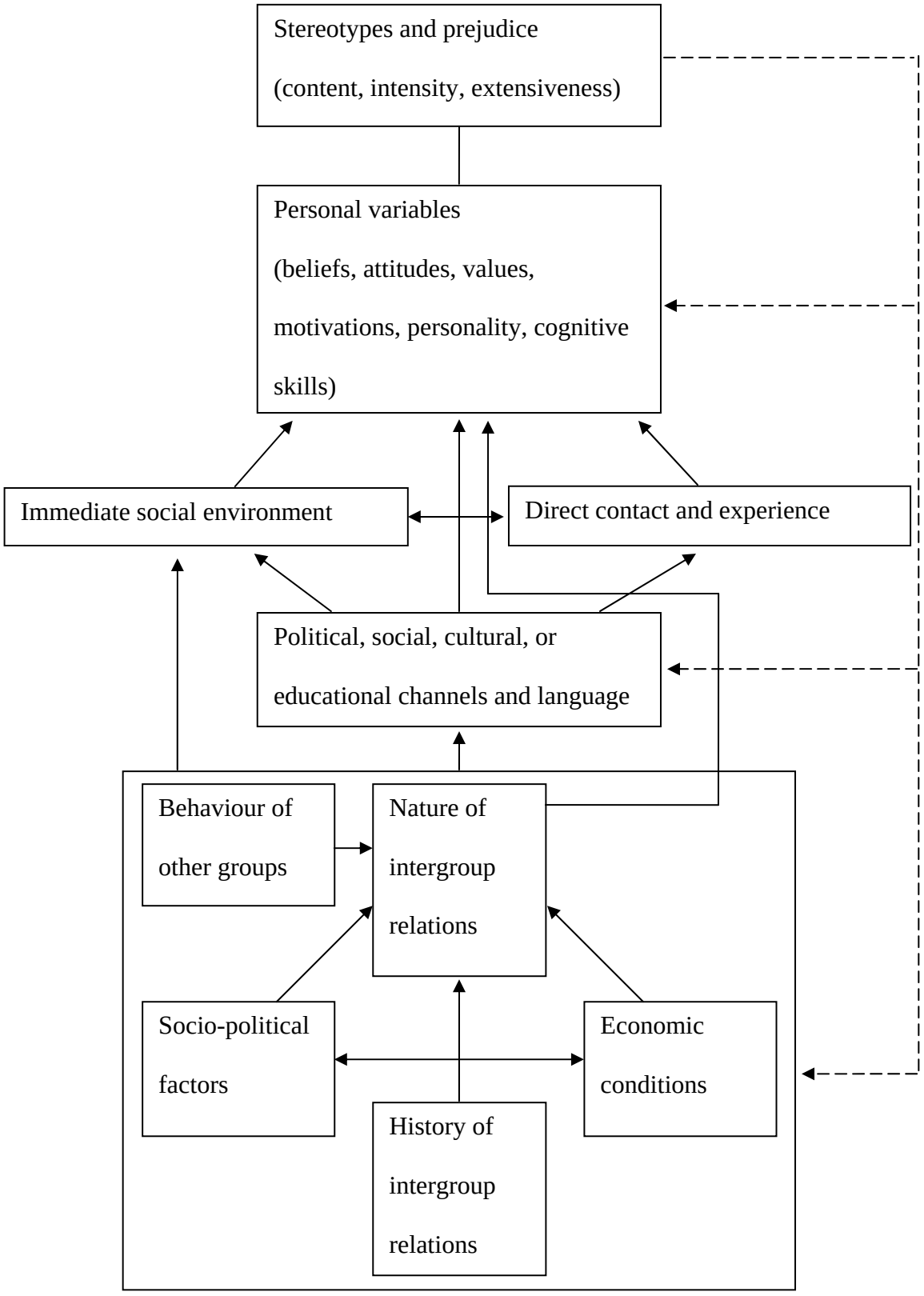
comparison between characteristics of in- and outgroup leads to positive stereotypes in case of perceived similarities and to negative stereotypes in case of perceived differences.

The integrative model hypothesises that the immediate social environment (neighbourhood, workplace, family, and friends) is a source of social influence and conformity pressure. The norms that evolve in neighbourhoods, families and schools have an effect on individual attitudes. Pre-school children typically spend most of their time inside their family and perceive their parents as a knowledgeable and reliable source of information. Parents' influence depends e.g. on the children's age and parents' interest in the respective issue. Child-rearing practices affect the worldview and dispositions of children and thus have an indirect effect on intergroup attitudes.

Children use the social information (e.g. about groups) provided by socialization agents (parents, teachers, friends, books, and the media) as well as direct experience to define themselves personally and socially. Unfortunately, television programs, comic books, and children's literature often characterize the world as split into good and bad characters which fosters undifferentiated attitudes. On the one hand, children's books often present simple characters in stereotypic roles, on the other hand, television programs and children's books can be used to promote a more differentiated view of certain outgroups, provide information and improve intergroup attitudes (Brown, 1995).

Information from direct contact, experience, and channels of information (education, media, and micro-social environment) leads to certain beliefs and attitudes which in turn produce stereotypes and prejudiced or unprejudiced intergroup attitudes. Inter-individual differences are expected based on differences in experiences and psychological structures. Personal variables like personal knowledge, cognitive skills, values, attitudes, motivations, and personality characteristics affect information processing. Individuals tend to process information selectively (focus on personally meaningful and consistent information).

Figure 2. Integrative Model of the Formation of Stereotype and Prejudice (adapted from Bar-Tal & Teichman, 2005, p. 33)



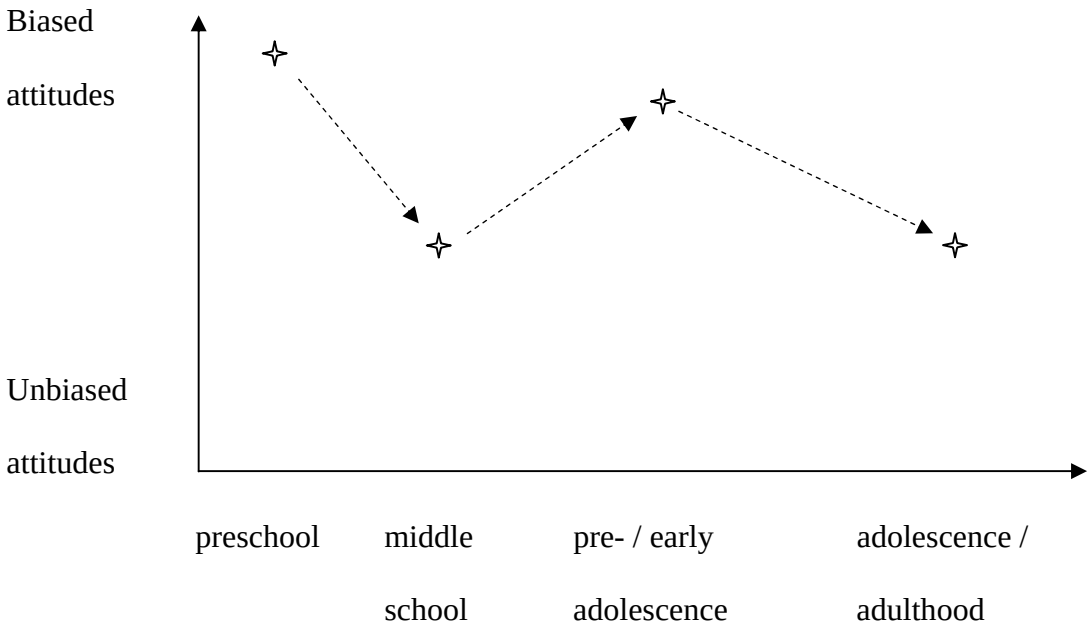
Bar-Tal and Teichman emphasized that infants and young children already have the ability for categorisation and language acquisition. Language is used to communicate about objects, representations, experiences, feelings, and ideas. Preschoolers tend to use words and concepts without real understanding of the categories they represent.

The acquisition of concepts and images does not depend on encounters with the represented objects but can also be based on socially shared information in the social context. Socially shared information is activated in intergroup situations or if the outgroup label becomes accessible. In consequence, consistent information is attended to and is remembered better while inconsistent information is often neglected. Self-categorisation as member of a certain group increases the likelihood that an individual agrees with ingroup members and validates own beliefs by comparison with ingroup members.

Figure 3 visualises the prototypical developmental course of stereotypes and prejudice in non-violent, multiethnic contexts as assumed by Bar-Tal and Teichman: In preschool age social representations of in- and outgroup are formed. Preschoolers' views and attitudes show a high level of ingroup preference due to cognitive development and cognitive constraints as well as affective components like negative arousal generated by strangers. In middle childhood (7 to 10 years) milder attitudes and views can be expected. This reduction in intergroup bias in school-age children is based on the leap in cognitive development and the lack of conflict in personal development. Pre- and early adolescence (11 to 15 years) is characterized by re-emerging bias due to the activation of self-enhancement motivation which destabilizes self-identity and self-esteem. Late adolescents (16 to 17 years) and young adults (22 to 24 years) show only mild differentiation between in- and outgroup because of the mature moral and social perspectives and a secure, consolidated sense of personal and social self. While the prototypical course of development is hypothesised to occur in benign

contexts, conflict or minority group situations may lead to different developmental trajectories.

Figure 3. Expected age-related pattern of intergroup attitudes based on the Integrative Model of Stereotype and Prejudice formation by Bar-Tal & Teichman (2005)



2.4.4 Integrative model of intergroup attitudes in children

Based on the theories and assumptions introduced by now, a model is presented which integrates the different aspects discussed in these theories (see table 4 and figure 4). The most distal factors assumed in the model are social environmental aspects. These include socialisation and characteristics of the macro-social environment. Agents of socialisation are the parents, peers, and socio-cultural agents like schools, teachers, books, and the media (Aboud, 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003). Parents' attitudes might affect children's attitudes because of model learning and imitation (Allport, 1954; Katz, 2003) or because parents reinforce children's attitudes if these are similar to their own (Katz, 2003). In addition, parents might provide information about social categories and their labels and characteristics (SIDT). Parenting behaviour might affect children's general world-view or personality and therefore have an indirect impact on

prejudice acquisition and development (Allport, 1954; Bar-Tal & Teichman, 2005; Katz, 2003). Peers and peer group norms are a very likely source of social influence and conformity pressures (Aboud, 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003). The school affects children via school norms and school climate, teachers' behaviour and attitudes, and school books and lesson content. Children's books, films, and other media directly or indirectly provide information about the ingroup and other groups, their characteristics, and the quality of intergroup relations. Depending on the content of these socialisation processes, they can be expected to foster prejudice or tolerant intergroup attitudes. The impact of socialisation should be strongest if all sources of socialisation provide similar information (social consensus).

Important characteristics of the macro-social environment are the amount of homogeneity or heterogeneity (which is also related to possibilities to enter intergroup contact) and the quality of intergroup relations (Bar-Tal & Teichman, 2005). Intergroup relations (historical and contemporary) that are characterised by competition, tension, and / or conflict foster prejudiced attitudes in individual group members (Bar-Tal & Teichman, 2005; SIDT). These distal factors are interrelated and influence prejudice via more proximal ones or directly.

The proximal factors which are assumed to have an effect on prejudice are located in inter-personal experiences (social factors) and in the individual (individual factors). Whereas a social consensus of normative, socially-shared prejudice fosters individual prejudice (SIDT), norms of tolerance in the social environment (including laws) foster unprejudiced intergroup attitudes (Bar-Tal & Teichman, 2005). In addition, positive intergroup contact can reduce prejudice (Aboud, 1988 / 2005; Bar-Tal & Teichman, 2005). According to Aboud (1988), social influence factors become increasingly important from approximately 6 years on because children acquire the concept "group". Individual factors which are important for the acquisition and development of prejudice are cognitive development (Aboud, 2005; Aboud

& Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003, SCDT; SIDT) and social identity development (Aboud, 2005; Bar-Tal & Teichman, 2005; Katz, 2003; SIDT). Prejudice is fostered by the acquisition of the concept "ethnic constancy" (i.e. the realization that group membership is stable over time and contexts) and by a strong identification with the ethnic ingroup. Prejudice is reduced if the child acquires social-cognitive abilities like moral reasoning, empathy, or taking the perspective of another group.

Cognitive development is modelled according to the SCDT. Ethnic group membership is not important in children who are between 9 or 12 month and 3 years old. Information processing and reactions to the (social) environment are determined by affective processes. In addition, from 9 or 12 months to 5 or 6 years, children show egocentrism. They believe that other people will feel, think, and behave the way they do. Different views, ideas, and behaviours are evaluated as wrong. From 4 to 7 years, perceptions dominate information processing and reactions to the (social) environment. Ethnic (self-)categorisation is also based on perceivable attributes. The child evaluates others positively if they are similar to him or her but negatively if they are dissimilar. From 5 or 6 to 7 years, groups and intergroup differences become important for the way the child experiences and reacts to the social environment. Pro-anti-dichotomies dominate the child's way of thinking. In the age range between 8 and 10 years, cognitive processes and cognition-based categorisations gain importance. The child acquires concrete operational abilities and uses them in the social domain. Therefore ethnic cognitions become more flexible (recognition of intragroup differences and intergroup similarities). Between the 10^{th} and 12^{th} year of life, individual characteristics become more important than group memberships and the cognitive limitations decrease.

Social identity development is assumed to occur as described in the SIDT: For infants and young children (stage 1: undifferentiated), racial cues are not salient and there is no

prejudice. In dominant ethnic groups in multi-ethnic societies, children realize or learn that there are different social categories in society with approximately 3 years (stage 2: ethnic awareness). Afterwards, children learn to label and identify members of different social categories and to self-categorise into an ethnic group (ethnic self-identification). Stage 3 (ethnic preference) is reached with approximately 4 or 5 years in dominant ethnic groups in multi-ethnic societies. In this stage children show a strong focus on the ingroup and its norms as well as a preference for the ingroup but no derogation of the outgroup. Outgroup derogation and discrimination (stage 4: ethnic prejudice) typically does not occur before the age of 6 or 7 years. The focus is on in- and outgroup simultaneously or strongly on the outgroup. Under benign conditions (i.e. in the absence of factors fostering prejudice and in the presence of factors reducing prejudice), individuals will not reach stage 4.

Before the age of 3 years, real prejudice can not be expected (SCDT, SIDT). Young children might only show antecedents of prejudice like positive reactions to ingroup members because of similarity or familiarity. The form of prejudice acquired with approximately 4 years which typically increases up to a peak at the age of 7 years is based on limitations of the developing cognitive system (SCDT). It is qualitatively different to prejudice in older children and adults. If there are no social or individual factors fostering prejudice in the child's social environment, prejudice is hypothesised to decrease from 8 to 12 years due to the acquisition of general and social-cognitive abilities (SCDT). The integrative model described here assumes that there is an increasing influence of social environmental, social, and individual factors on prejudice in 8- to 12-year-old children. In 11- to 15-year-olds, processes of identification are especially important due to the self-enhancement motivation and search for a social identity assumed in the model of Bar-Tal and Teichman (2005). From the age of 16 on, a mild bias in favour of the ingroup is expected in benign contexts if the individual has acquired a high stage of moral reasoning, a high socio-cognitive level, and a

stable identity. In teenagers and adults, characteristics of the social environmental, the individual, and the social, interpersonal experiences are assumed to be the main factors of influence on prejudice. Intergroup conflict, prejudiced norms, and a lack of contact can lead to strong prejudice despite socio-cognitive abilities.

As the complete model could not be tested within the scope of the present project, the project focussed on several aspects of the integrative model: Peers were chosen as a potential source of socialisation and social influence because adults become less important as source of social influence with increasing age whereas peers gain influence (Aboud, 1988; Petillon, 1987; Ross & Spielmacher, 2005). Social norms provided by the peer group and intergroup contact were included as potential factors of social influence. General cognitive stage, social-cognitive abilities, and identification with the ethnic ingroup were chosen as characteristics of the individual.

Table 4. Integrative model of intergroup attitudes in children.

Social environment	• Socialisation ▪ Parents ∗ parenting behaviour [Allport, 1954; Bar-Tal & Teichman, 2005; Katz, 2003] ∗ parental attitudes (model learning, imitation) [Allport, 1954; Katz, 2003] ∗ reinforcement of attitudes [Katz, 2003] ∗ source of social information (explain social categories and their labels and attributes) [SIDT] ▪ Peers [Aboud, 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003] ∗ social influence and conformity pressures ∗ peer group norms ▪ Socio-cultural agents (media, books, schools) [Aboud, 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003] • Macro-social environment ▪ societal homo- or heterogeneity [Bar-Tal & Teichman, 2005] ▪ intergroup relations (cooperation, competition, tension, conflict) [Bar-Tal & Teichman, 2005; SIDT]
Social factors	Factors fostering prejudice: • Prejudiced social consensus (normative, socially shared prejudice) [SIDT] • Conflict with outgroup members [Bar-Tal & Teichman, 2005; SIDT]

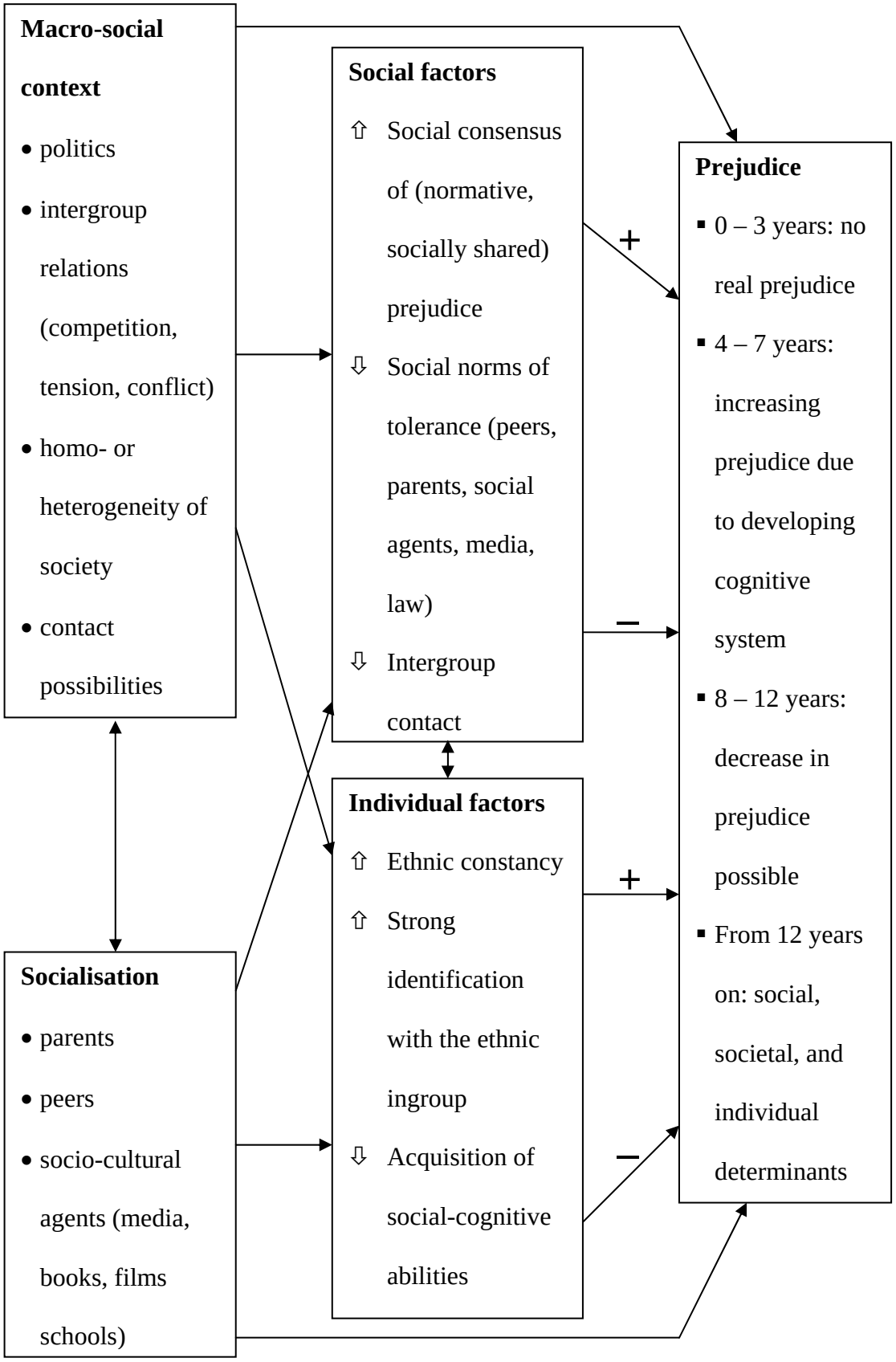
Table 4 (continued). Integrative model of intergroup attitudes in children.

Social factors (continued)	Factors reducing prejudice: • Intergroup contact [Aboud, 1988 / 2005; Bar-Tal & Teichman, 2005: positive but not negative contact reduces prejudice] • Norms of tolerance (parents, peers, socio-cultural-agents, law) [Bar-Tal & Teichman, 2005] According to Aboud (1988), social influence factors become increasingly important when groups enter the focus of attention (i.e. from approximately 6 years on).
Individual factors	Factors fostering prejudice: • Ethnic constancy [SIDT] • Strong identification with the ethnic ingroup [SIDT] Factors reducing prejudice: • Acquisition of socio-cognitive abilities like empathy, perspective taking, moral reasoning [SCDT; SIDT] Factors affecting prejudice: • Cognitive development [Aboud, 1988/ 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003] • Social identification processes and development [Aboud, 2005; Bar-Tal & Teichman, 2005; Katz, 2003; SIDT]

Table 4 (continued). Integrative model of intergroup attitudes in children.

Prejudice	• 0 to 3 years: no real prejudice [SCDT] • 4 to 7 years: increasing prejudice (qualitatively different from prejudice in older children and adults) [SCDT] • 8 to 12 years: decrease in prejudice under benign conditions (increasing influence of social environment, social factors, and identification processes) [SCDT] • 11 to 15 years: strong impact of identification processes (self-enhancement motivation) [adapted from Bar-Tal & Teichman, 2005] • 16 years to adulthood: mild bias under benign conditions (high moral-reasoning, high socio-cognitive level, stable identification; strong impact of social environment and social factors) [adapted from Bar-Tal & Teichman, 2005]

Figure 4. Integrative model of intergroup attitudes in children.



2.5. What influences prejudice level in children?

The integrated model includes social norms, instances of social influence, and intergroup contact experiences as external factors having an impact on attitudes in children. On the following pages, social psychological theories are summarised on which the selection and operationalisation of the studied factors of influence was based.

2.5.1 Social influence and social norms

According to the SCDT (Aboud, 1988), cognitive development is seen as providing the child with the necessary requirements for less biased thinking. But developing cognitive abilities will only lead to less prejudiced attitudes if the prejudice level in the child's social environment (family and friends) is not too high. "Social factors would be expected to be less influential in the early years […] and more influential in the middle stage when groups are critical." (Aboud, 1988, p. 126). Aboud assumed that in the highest stage of her model only social factors coming from sources that are respected and have expertise have an impact on children's attitudes.

2.5.1.1 Social Impact Theory (Latané, 1981)

Latané (1981) defined *social impact* as "changes in physiological states and subjective feelings, motives and emotions, cognitions and beliefs, values and behaviour, that occur in an individual, human or animal, as a result of the real, implied or imagined presence or actions of other individuals" (p. 343). Latané assumed that the amount of impact **I** experienced by the target is a multiplicative function of the strength S, the immediacy I, and the number of sources present N. Strength stands for the salience, power, importance, or intensity of the source to the target and depends on the source's status, age, and prior or future relationship to or power over the target. Immediacy describes the closeness in space or time and the absence of barriers or filters.

The *Dynamic Social Impact Theory* (Nowak, Szamrej & Latané, 1990) deals with the impact one or more people or groups have on an individual at a given point of time. As individuals have reciprocal effects on their social environment there are dynamic consequences for groups: Each individual affects others and is affected by others at the same time.

In a school class, expressions of attitudes and behaviour toward members of the ethnic in- and outgroup can be directly experienced (immediacy). If the class is important for the students, classmates' attitudes and behaviour should be an important source of social influence and information (strength). The more classmates show a certain pattern of intergroup behaviour or intergroup attitudes, the higher should the influence be (N). Similarly, children's friends are a very likely source of social impact. As group memberships and the peer group become increasingly important in middle childhood (Aboud, 1988; Petillon, 1987; Ross & Spielmacher, 2005), the influence of peer group and friends might be stronger than the impact of teachers and parents. Teachers and parents might be regarded as having expertise and might be important for children (strength), but as children spent increasingly more time with peers, their impact might be comparably small (immediacy, N).

Studies with German school children point at a reduced social orientation towards adults and a growing orientation towards peers at the transition from child to teenage years (Petillon, 1987).

2.5.1.2 Model of Social Influence (Kelman, 2005)

Kelman differentiated three forms of social influence: *Compliance* is based on the individual's concerns about the social consequences of behaviour. Individuals accept the influence from another person or a group to gain rewards or approval or to avoid punishment or disapproval. This form of social influence can only be effective if the source controls important resources and surveys the individual. As an example, the rules set by a teacher

might only be followed as long as the teacher is present and can reward or punish students' behaviour.

The power of *identification* lies in the social anchorage of behaviour and the attractiveness of the source of influence. The individual accepts social influence in order to establish or maintain a satisfying self-defining relationship with an individual or group. Important aspects are reciprocity, modelling, role requirements, and social support. The adaptation of behaviour will fade away if the relationship to the source of influence looses its salience. Peer groups and cliques might be influential as long as it is attractive to the child to belong to the respective group. Children might adopt the norms and attitudes of a peer group if they identify with this group.

Internalization occurs if an individual accepts the influence from another person or a group to maintain beliefs and actions congruent with his or her own value system. Internalization builds upon a concern for the congruence between behaviour and the individual's value system. This form of social influence might be too complex and sophisticated for school children especially in elementary school.

2.5.1.3 Social norms (Cialdini & Goldstein, 2004)

Norms are especially useful for orientation if the individual is uncertain how to respond in a social situation (Cialdini & Goldstein, 2004). To influence the individual's behaviour and thinking, personal and social norms have to be conscious and salient. Social norms include information about things that are typically approved or disapproved (*injunctive norms*) and things typically done by members of their social category (*descriptive norms*). Compliance to social norms or expectations can be enhanced by perceptions of similarity between the source of influence and the individual – even if the similarity is superficial (e.g. sharing name or birthday). Cialdini and Goldstein assume that social conformity or non-conformity to beliefs held by others depend on the perceived level of consensus regarding these beliefs.

Acceptance of prejudiced behaviour is much more likely if a majority of the own group is expected to approve of those behaviours.

Bar-Tal and Teichman (2005) assumed that an individual tends to accept the group's beliefs, norms, and attitudes if it identifies with a certain group. In middle childhood, children spent more time with peers than parents, identify strongly with peer group norms (which might differ strongly from their parents' or other adults' norms), and are increasingly concerned about being accepted by peers (Ross & Spielmacher, 2005). Adolescents are very sensitive to criticism and others' negative reactions (Rice, 2001): Adolescents are accepted by peer groups if their personality and behaviour matches the group's norms and popularity depends on conformity to the peer group norms. Petillon's (1987) observations and interviews indicated that peer group norms are very important in the evaluation of classmates and for decisions about interaction or avoidance. According to Petillon, social norms in peer groups prescribe how individual members of the group are expected to behave, interact, think, and feel. They are similar to unwritten laws and if an individual does not stick to these laws he or she will be punished (withdrawal of social acceptance or exclusion from social activities).

School-age friendships provide knowledge of behavioural norms (Newcomb & Bagwell, 1995). In middle childhood (age 8 to 12 years) companionship with friends becomes more and more important and the circle of friends is widening (Rice, 2001). The number of friends reported as "close friends" increases up to the age of 11 years and begins to decline afterwards (Ross and Spielmacher, 2005). According to Petillon (1987), friends usually are similar to each other in their attitudes, interests, language, manners, area of living, and performance in school. Rice (2001) emphasised that children prefer friends that are similar to themselves in many respects (e.g. humour and sociability) and strive to look, dress, and act alike. A meta-analysis of 82 articles (Newcomb & Bagwell, 1995) showed that friends reported a higher amount of social contact ($d = .63$), talking ($d = .47$), cooperation ($d = .36$),

positive affect (d = .44), similarity (d = .39), equality (d = .40), liking (d = .75), and closeness (d = .61) than non-friends. There was a significant amount of heterogeneity in the effect sizes which could to some extent be explained by respondents' age group. Even though friends differed significantly from non-friends at all age levels, the difference between friends and non-friends was larger in early adolescence than during preschool years. Friends can be assumed to be important sources of social influence. Children choose friends who are similar to them in their attitudes, likes, dislikes, and behaviour. As they spend a lot of time with each other and disclose and exchange their thoughts and feelings, they are highly likely to have a reciprocal social influence on each other. Therefore they should reinforce each others' attitudes and become even more similar over time.

2.5.2 Contact with outgroup members

The *Contact Hypothesis* assumes that contact with outgroup members will lead to more positive intergroup attitudes if the intergroup contact situation provides the same status for members of both groups, if there is a common goal, and if the contact is cooperative and interdependent and approved of by authorities (Allport, 1954; Brown & Hewstone, 2005; Hewstone & Brown, 1986; Pettigrew, 1998). Pettigrew (1998) assumed that contact has positive effects because the individual gains knowledge about the outgroup that might alter existing negative stereotypes about this group, because positive behaviour towards members of the outgroup during contact might induce dissonance with negative attitudes which leads to attitude change, and because contact can encourage the formation of affective bounds. Reduced intergroup fear and a re-evaluation of the ingroup (deprovincialisation) may play a role as well.

2.5.2.1 Reformulated Intergroup Contact Theory (Pettigrew & Tropp, 2006)

Pettigrew and Tropp (2006) suggested mechanisms how intergroup contact reduces intergroup prejudice. They assumed that the underlying process of the contact-prejudice link

involves the tendency of familiarity to breed liking. The underlying process of the familiarity-breeds-liking mechanism could be uncertainty reduction. Intergroup contact is likely to reduce negative feelings like intergroup anxiety or threat which in turn leads to reduced prejudice. The term intergroup anxiety refers to feelings of threat and uncertainty in intergroup contexts which are based on concerns how to behave, how one might be perceived, and whether one will be accepted. Intergroup anxiety has been shown to mediate the contact-prejudice relationship. Pettigrew and Tropp also assumed perspective taking, a broadened view of the ingroup, and perceived importance of contact as potential mediators for contact effects.

2.5.2.2 Extended Contact Hypothesis (Wright, Aron, McLaughlin-Volpe & Ropp, 1997)

The Extended Contact Hypothesis assumes that the mere knowledge that an ingroup member has a close relationship with an outgroup member can result in more positive intergroup attitudes (Wright, Aron, McLaughlin-Volpe & Ropp, 1997). An advantage of extended, indirect contact is that group membership of individuals in a cross-group friendship might be more salient to an observer than to the friends because the observer is aware of fewer individuating attributes. In addition, just observing an intergroup friendship should not evoke anxiety and negative emotions whereas the prospect of direct contact might do so. Indirect contact is also possible in areas with a low percentage of outgroup members where opportunities of direct contact are limited. Indirect contact only works if neither the ingroup nor the outgroup member in intergroup contact are perceived as exceptions of the rule.

Indirect contact is assumed to reduce prejudice because it provides information about the ingroup norms regarding intergroup relations and because the ingroup member serves as a positive exemplar (referent informational influence). A second mechanism is the reduction of fear and negative expectations in the observer which might in turn lead to increased willingness to interact with members of the outgroup. When the ingroup member provides

information about the outgroup, reduced ignorance and the correction of misperceptions and misinterpretations might improve intergroup attitudes and willingness for contact. The ingroup member's outgroup friend serves as a positive exemplar of the outgroup. If the outgroup membership is salient and the outgroup is perceived as relatively homogeneous, positive information about the outgroup member might modify negative stereotypes about the outgroup. Another mechanism assumed by Wright et al. is including the other in the self (IOS). This concept assumes that close others can function cognitively like the self (empathy with the other's troubles, pride in others' success, sharing, and so on) and that ingroup but not outgroup members are spontaneously integrated into the self. If the ingroup member is included in the self and the outgroup member is associated with the ingroup member, the outgroup member is part of the observers' self as well because he or she is part of the ingroup member's self. This undermines ingroup-outgroup distinctions and includes outgroup members into the circle of benefited individuals.

2.6 Relevant empirical studies so far

2.6.1 Attitude development

Despite the fact that *longitudinal studies* are most informative with regard to prejudice acquisition and development, there are only a few longitudinal studies of prejudice in children.

Phyllis Katz and her colleagues repeatedly surveyed European-American children between their sixth month and sixth year of life (Katz, 2003). During the second year of life, most of the children were able to sort dolls by gender and skin colour and ascribe the correct ethnic label to pictures showing themselves and other people. Three-year-olds showed a slight ingroup preference in evaluations which increased until the sixth year of life. In a task asking them to choose playmates 63% of the 5- and 6-year-olds chose members of the gender and ethnic ingroup. Early ethnic categorization abilities in 1- to 3-year-old children predicted

ingroup bias later in life. Children with high prejudice levels at the age of 5 or 6 years typically had already been prejudiced at preschool.

A longitudinal study assessing Anglo-Canadian children's attitudes showed that 85% of the kindergarten children but only 52% of the 3rd-graders showed a high pro-White/anti-Black bias (Aboud, 1993).

The attenuation of intergroup bias expected for the preoperational stage was not found in Jewish children in the conflict-laden situation of Israel (Bar-Tal & Teichman, 2005). Significant age effects were found for negative but not for positive feelings toward Arabs. The most negative and least positive feelings toward Arabs were found in 7- to 10-year-olds. Between 11 and 15 years there was a plateau for negative feelings on a rather high level and positive feelings decreased between 10 and 14 years. Afterwards there was a decline of negative feelings and an increase in positive feelings. In the 22- to 24-year-olds positive and negative feelings toward Arabs were at a comparable level.

Cross-sectional studies are much more common. The following paragraphs will present relatively current cross-sectional studies from different age-groups.

When they were asked to choose a playmate based on photographs of one Asian, one White, and one Black child, 10- and 11-year-old Taiwanese children chose outgroup members more frequently than 3- to 9-year-olds (Kowalski & Lo, 2001). In line with the SCDT, the oldest age group was most likely to explain their choices with individual characteristics of the depicted children. The 8- and 9-year-olds showed the strongest ingroup bias of all age groups and explained their choices with ethnic group membership most frequently. Taiwanese children seem to develop ethnic self-identification and awareness later than children in American studies. Kowalski and Lo assumed that this is due to the homogeneity of Taiwan's society.

Five- to 6-year-old as well as 8- to 9-year-old Anglo-Australian respondents were more likely to ascribe a positive trait to a white vs. black target and a negative trait to a black vs. white one when they were asked about Australian stereotypes (Augoustinos & Rosewarne, 2001). Whereas there was no significant difference between these stereotypes and self-reported attitudes in the younger sample, the older age group distanced themselves from negative trait ascriptions to black targets by reporting them more frequently as Australian stereotype than as own beliefs.

The assumed decrease in intergroup bias in children was supported by a cross-sectional study with Anglo-Canadian 5- to 12-year-olds (Doyle, Beaudet, & Aboud, 1988): 6th-graders ascribed significantly fewer positive traits to the ingroup compared to 1st-graders and kindergarten children and significantly fewer negative traits to the outgroup "French-speaking children" than all other age groups. The number of positive ingroup ascriptions was significantly lower in grades three and five compared to the kindergarten age.

Jewish 4- to 6-year-olds in Israel showed the most positive ingroup beliefs and the most negative outgroup beliefs – compared to them 7- to 9-year-olds had slightly less positive ingroup beliefs and clearly more positive outgroup beliefs and 10- to 12-year-olds showed less positive ingroup attitudes but equally negative outgroup attitudes (Teichman, 2001). The latter might be due to the conflict-laden intergroup relations Jewish and Arab Israelis or to identity processes in early adolescence. The 13- to 15-year-olds reported the least positive ingroup beliefs and most positive outgroup beliefs.

Anglo-Australian 6- and 8-year-olds rated Anglo-Australians more positively than Pacific Islanders and these more positively than Aborigines in a trait ascription task (Griffith & Nesdale, 2006). In contrast, 10-year-olds did not evaluate Anglo-Australians, Pacific Islanders, and Aborigines significantly different.

The interethnic attitudes of 8- to 17-year-olds toward immigrants, "Blacks" and "foreigners" in Sweden became more positive between the age of 8 and 12 years but showed a renewed increase in negativity between 12 and 16 years (Zakrisson, 1992). The 16- to 17-year-old respondents showed more positive intergroup attitudes than the 12- to 16-year-olds.

Spanish children reported the highest number of positive and the lowest number of negative societal stereotypes for the Spanish and the highest number of negative and lowest number of positive stereotypes for Gypsies (Enesco, Navarro, Paradela, & Guerrero, 2005). Chinese and Latin Americans fell in between. Compared to the 8- and 10-year-olds, the 11-year-olds agreed to significantly fewer positive stereotypes about the Spanish and significantly fewer negative stereotypes about Gypsies.

To sum up, the supposed increase of ingroup bias from preschool age until the age of 7 years was shown longitudinally (Katz, 2003). A decrease in prejudice after the age of 7 years has been found in several studies (longitudinal: Aboud, 1993; cross-sectional: Augoustinos & Rosewarne, 2001; Doyle, Beaudet, & Aboud, 1988; Enesco et al., 2005; Griffith & Nesdale, 2006; Zakrisson, 1992). In the ethnically homogeneous context of Taiwan ingroup bias increased until the age of 8 or 9 years and decreased from the age of 10 years on (Kowalski & Lo, 2001). There are also empirical results supporting the assumptions by Bar-Tal and Teichman (2005) that interethnic attitudes show a renewed increase in early adolescents and then decrease again in late adolescence or early adulthood (Teichman, 2001; Zakrisson, 1992).

Another important question is if children only show ingroup bias or also outgroup derogation. There are some studies indicating that *outgroup derogation* occurs at least in some children with regard to specific outgroups: When they were asked to evaluate the national ingroup and several relevant national outgroups, 6-year-olds in Azerbaijan, Great Britain, Russia, and Georgia preferred their respective national ingroup over national

outgroups (Bennett, Barrett, Karakozov, Kipiani, Lyons, Pavlenko, & Riazanova, 2004). Outgroup derogation in the sense of evaluations below the scale's mid-point occurred only in the ratings of Azerbaijanis by Georgian and Russian children and of Georgians by Russian and Ukrainian children. In a study with British children, the evaluations of people depicted on photographs were significantly more positive when these people were labelled as "British" vs. not labelled at all for the 10-, 12-, 14-, and 16-year-olds but there were no labelling effects for the 6- and 8-year-olds (Rutland, 1999). Targets were evaluated significantly less positively by the 12- to 16-year-olds when they were presented with the label "German" instead of unlabelled. The labels "Australian", "American" and "Russian" did not have a significant effect on evaluations. A German study with 8- to 13-year-olds showed that they preferred the ingroup over all outgroups (Germans: *mean* = 1.2, *standard deviation* = 0.5 vs. Americans: *mean* = 1.9, *SD* = 0.9; Italians: *mean* = 1.9, *SD* = 0.8; Polish: *mean* = 2.1, *SD* = 1.0; Turks: *mean* = 2.2, *SD* = 1.0; Moroccans: *mean* = 2.2, *SD* = 1.0; ethnic German immigrants: *mean* = 2.2, *SD* = 0.9; Avci-Werning, 2004). Mean ratings of liking were below the scale mean only for Sinti and Roma (*mean* = 2.7, *SD* = 1.0). In a study with 13- and 14-year-olds in Northern Italy, Venetians, Italians and French were rated consistently positive whereas the majority of participants evaluated Gypsies, Albanians, and Moroccans negatively (Kiesner, Maass, Cadinu, & Vallese, 2003). The mean evaluations for Chinese, Jews, Southern Italians, Africans, and Germans were neutral. Prejudice against Turkish people, i.e. the evaluations 5 or 6 on a scale from 1 (*very good*) to 6 (*insufficient, very bad*), was shown by 19% of a sample of German students who were attending schools providing the lowest of three possible levels of education (Dollase, 2001). To sum up, an overview of relevant empirical studies indicates that ingroup bias is much more common than outgroup derogation but that some children show prejudiced attitudes toward specific outgroups. This is in line with theories assuming that prejudice is acquired toward specific

low-status groups (e.g. Allport, 1954) or under specific circumstances that foster prejudice (e.g. SIDT, Bar-Tal & Teichman, 2005).

2.6.2 Cognitive development and prejudice

A small number of studies provides empirical support for the link between increasing (social-) cognitive abilities and more positive outgroup attitudes: Increasing numbers of positive trait ascriptions to ethnic outgroups were related to the acquisition of the concept conservation of quantities and the differentiation within and between ethnic groups in a longitudinal study reported by Aboud (1993). The number of negative traits ascribed did not change over time. If prejudice reduction was due to social desirability concerns instead of cognitive changes, older children should be especially reluctant to ascribe negative attributes to an outgroup. A Swedish study with participants who were between 8 and 17 years old showed a significant correlation between increasing cognitive level and decreasing negative attitude toward immigrants (Zakrisson, 1992).

More indirect support comes from a study showing age-related patterns of lower prejudice in older children and the parallel development of general cognitive abilities and socio-cognitive abilities (Doyle, Beaudet, & Aboud, 1988): In Anglo-Canadian children, negative trait ascriptions to the ethnic outgroup were significantly less frequent in the 12-year-olds than in the 7-year-olds and the kindergarten children. The acquisition of concrete operational thinking (conservation of quantities) seemed to precede the realization that there are differences within and similarities between ethnic groups (from 42 children solving only one of the two tasks, 31 solved the conservation-task first).

2.6.3 Ingroup identification and prejudice

Minimal group studies show that the mere categorization into two (meaningless) social groups can lead to ingroup bias: In a minimal group experiment, 7- to 11-year-olds allocated significantly more money to ingroup members or friends than to outgroup members or

classmates who were no friends of theirs (Vaughan, Tajfel, & Williams, 1981). Ingroup and outgroup membership was based on alleged preference for pictures drawn by students of the red or the blue school. Three- to 9-year-olds from South-Wales rated the own team significantly more positive than the other team without knowing who was in their team when they were categorized into slow and fast teams presumably based on their performance in an egg-and-spoon-race (Yee & Brown, 1992). Participants in a study by Nesdale and Flesser (2001) were asked to imagine taking part in an inter-school drawing contest. The Anglo-Australian 6- and 8-year-olds were introduced to their team of two other children with similar drawing skills (two other self-drawings and a team-colour-name). Another team was then introduced with better or inferior drawing skills (three self-drawings and a colour name). The own team was liked more than the other team which was not disliked in any of the conditions. In a similar fake drawing competition with Anglo-Australian 6- to 11-year-olds, 6-year-olds liked the members of the opposing team less than the 7- and 9-year-olds (Nesdale, Durkin, Maass, & Griffiths, 2004). All age groups liked members of their own team more than those of the other team but did not dislike the other team.

Reicher (2004) emphasizes that only one set of categories and no additional information is available in the minimal group paradigm. This makes the group distinction all-important because subjects have nothing else to rely on in the experimental situation. In natural situations many different categories are available to make sense of a given situation (but certain contexts may be chronically organized in terms of a certain social identity).

A study with 6- to 15-year-olds from Scotland and England indicates that ingroup identification is no prerequisite for ingroup favouritism but increasing ingroup identification seems to enhance ingroup bias (Bennett, Lyons, Sani, & Barrett, 1998): Participants were asked to choose cards that they found useful to describe themselves (nationalities, town inhabitants, age, gender) and sort them by importance. In addition, they were asked to rate

how strongly they felt British as well as English or Scottish. Those participants, who did not use nationality (30% of the sample) or ethnicity (14%) to describe themselves, preferred the ingroup (English or Scottish) to other groups (Italian, French, Spanish, and Germans) in ratings of liking and in positive trait ascriptions but not in negative trait ascriptions. This ingroup bias without ingroup identification might be due to greater familiarity with the ingroup or the transmission of social information. When all children were included in the analysis, ingroup evaluation became more positive with increasing ingroup identification. Age was controlled for in the analyses because it was confounded with level of identification. The amount of ingroup identification was significantly correlated with ingroup evaluations (ratings of liking: r = .20, positive trait ascriptions r = .19, and negative trait ascriptions: r = –.13). Identification with the category British was significantly correlated with the number of negative trait ascriptions to Germans (r = .11). Higher identification with the category English or Scottish went along with more negative trait ascriptions to Germans, French, Italians, and Spanish (r = .16 to r = .13) but also with more positive trait ascriptions to Italians and French (r = .16 /.12).

In the Netherlands, ingroup bias in trait ascriptions (Verkuyten, 2002; 10- to 12-year-olds) and ratings of liking (Verkuyten & Thijs, 2001; 10- to 13-year-olds) was stronger for those who identified more strongly with their ethnic ingroup Dutch.

The empirical studies reported above indicate that the strength of ingroup identification is correlated with the amount of intergroup bias. They do not provide information about causal relations between strength of ingroup identification and intergroup attitudes.

2.6.4 Social influence, social norms, and prejudice

Nesdale, Maas, Durkin and Griffith (2005) used the fictive drawing competition scenario to demonstrate the impact of group norms: Children of an Australian elementary school were grouped into fictive teams and told that the other members of the ingroup liked other teams

and wanted to work together with them (cooperative, tolerant norm) or disliked other teams and did not want to work together (competitive, intolerant norm). Children in the intolerant norm condition indicated dislike for the other team. In contrast, those with a tolerant group norm indicated no dislike.

Another study with the fictive drawing competition implemented a norm of inclusion or exclusion (Nesdale, Griffith, Durkin, & Maas, 2005): Half of the Anglo-Australian 5- to 12-year-olds were told that the other members of their own team liked to work together with other teams "even when the other teams have different kids in them" (inclusion norm). The remaining respondents were told that their team-mates did not like to work with people from other teams "especially when they have different sorts of kids in them" (exclusion norm). Participants liked another team which was composed of Pacific Islanders less when the fictive ingroup norm was one of exclusion vs. inclusion.

White British 6- to 7-year-olds ascribed significantly more negative traits to the outgroup Germans than to the ingroup whereas the 10- to 12- and 14- to 16-year-olds showed no significant difference in the negative trait ascriptions to in- and outgroup (Rutland, Brown, Cameron, Ahmavaara, Arnold, & Samson, 2007). Older children evaluated the behaviour of British children who excluded others from an activity because they were German more negatively than younger children and this perceived ingroup norm of inclusion was in part accountable for the relationship between age and trait ascriptions. The result was found despite the fact that the response options for evaluations of the British protagonists were highly suggestive (*OK*, *bad*, *very bad*, and *very very bad*).

A study with Canadian 8- to 11-year-olds assessed similarity in interethnic attitudes for children and their nominated best friend from the same grade (Aboud & Doyle, 1996). All correlations between the children's self-reported attitude and the friend's attitudes as predicted by the child were significant and positive (r = .47 to .75). In contrast, a significant

correlation of children's attitudes and their friends' actual attitudes occurred only in one of the variables (r = .36). These results indicate a potential false consensus effect: Respondents erroneously assumed that their friends have attitudes similar to their own. Children might misinterpret friends' comments or reinterpret them in the light of their own opinion. This should be more likely when attitudes are expressed in an implicit and ambivalent way.

In a study from Northern Italy, the mean attitudes toward two ethnic ingroups (Italians, Venetians) reported by those classmates respondents had nominated as friends were significant predictors of respondents' attitudes (Kiesner, Maass, Cadinu, & Vallese, 2003; mean age: 13 years). Friends' mean attitudes also significantly predicted respondents' attitudes for stigmatized outgroups (Gypsies, Albanians, and Moroccans). In contrast, friends' attitudes did not significantly predict respondents' attitudes toward outgroups that were evaluated neutrally or positively on average (French, Chinese, Jews, South Italians, Africans, and Germans).

In order to study the impact of peer dialogue on intergroup attitudes, Aboud and Fenwick (1999) paired 8- to 11-year-old children with prejudice scores above the median with friends from class with prejudice scores below the median. The children were asked to discuss about two statements from the attitude measure for two minutes without having to agree on an answer. The typical result was that the prejudiced students had significantly lower prejudice scores when they were re-tested after the discussion. Prejudice reduction was especially likely if the unprejudiced friends provided arguments and examples focussing positive outgroup attributes, negative ingroup attributes, and intergroup similarities. Scores of non-prejudiced students were not affected by the discussion.

2.6.4 Intergroup contact and prejudice

Cross-sectional studies have repeatedly shown a negative correlation between *direct intergroup contact* and negative intergroup attitudes or ingroup bias in children. A study

with white British 3- to 5-year-olds showed that children from all-white and majority-white kindergartens showed clear anti-African-Caribbean bias in trait ascriptions whereas children in mixed areas did not show interethnic bias (Rutland, Cameron, Bennett & Ferrell, 2005). White US-American 5- and 6-year-olds in mixed classes showed more positive attitudes toward African-American children than children from segregated classes (Goldstein, Koopman, & Goldstein, 1979). Parents of children with high intergroup bias at age six reported that their children had predominantly ingroup friends (Katz, 2003). Ingroup favouritism among Dutch 10- to 13-year-olds in the Netherlands was stronger in classes with fewer immigrant classmates compared to classes with higher numbers of immigrant classmates (Verkuyten & Thijs, 2001). Self-reported amount of contact with members of ethnic outgroups was related to more positive attitudes toward these groups in a study with Northern Italian adolescents (Kiesner, Maass, Cadinu, & Vallese, 2003; mean age: 13 years). German school students showed more positive evaluations of Turkish immigrants with an increasing percentage of immigrant classmates (Dollase, 2001). In German 14-year-olds frequency of contact with Turkish peers in leisure time was a significant predictor for liking toward Turkish people (Wagner & Machleit, 1986).

The strongest empirical support for the relation between direct intergroup contact and intergroup attitudes comes from a meta-analysis including 515 studies, 713 independent samples, and 250 089 participants from 38 nations (Pettigrew & Tropp, 2006). All studies assessed actual face-to-face interactions between members of clearly defined groups. The mean effect size was r = -.21 and the correlation between contact and prejudice was negative in 94% of the samples. Heterogeneity in effect sizes ($Q_{(695)}$ = 4.99, p < .001) could in part be explained by a number of moderating variables. Similar mean effect sizes emerged for all age groups (children between 1 and 12 years: -.24; adolescents: -.21; college students: -.23; adults: -.20).

Longitudinal studies provide information about the causal direction of the relation between intergroup contact and intergroup attitudes. In a study with British 11- to 16-year-olds, quantity of direct contact with private school students at time 1 was significantly and negatively correlated to negative attitudes toward private school students at time 2 (Brown, Eller, Leeds, & Stace, 2007). Negative attitudes at time 1 were not significantly correlated to quantity of contact at time 2. The interval between the two measurement times was 14 weeks. In a study with White American students, the amount of intergroup contact in grades 5 or 6 was significantly correlated with positive interethnic attitudes in grades 7 or 8 (r = .25, Stephan & Rosenfield, 1978). Interethnic attitudes in grades 5 or 6 were not significantly correlated with amount of interethnic contact in grades 7 or 8.

Empirical support for the hypothesis that *indirect contact* is related to more positive attitudes toward the outgroup – even when direct contact is controlled for – was provided by studies with adult participants (Paolini, Hewstone, Cairns, & Voci, 2004; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). The effect of extended contact in children has been studied with a very indirect form of contact: White British 5- to 11-year-olds listened to three stories about ingroup members and their refugee friends in groups of two or three (Cameron, Rutland, Brown, & Douch, 2006: six weeks, one intervention per week, 15 to 20 minutes per intervention). The participants in the control condition heard no stories. Dependent measures were assessed one or two weeks after the intervention. Children in the three extended contact conditions had significantly more positive attitudes toward refugees than those in the control condition. Ingroup attitudes were not affected.

3. Hypotheses

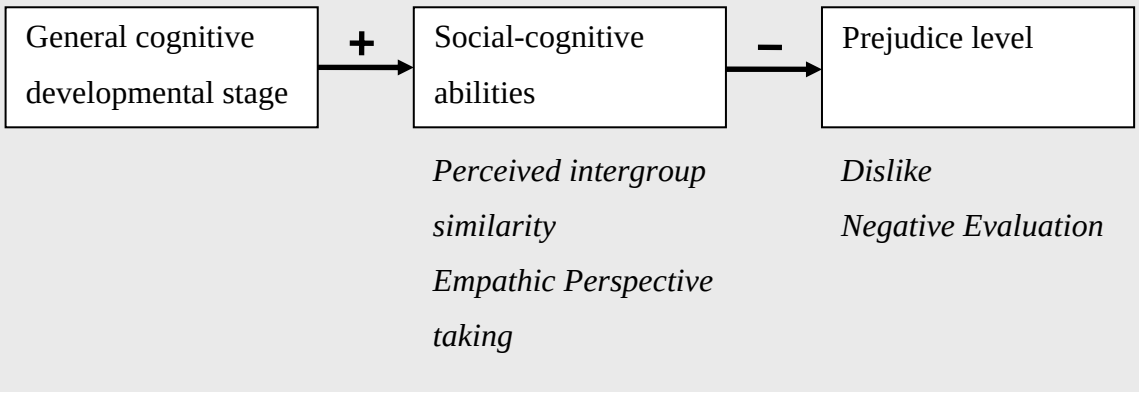
The hypotheses were formulated based on the integrated model described in paragraph 2.4.4, the theories summarized in paragraph 2.5, and the empirical results reported in paragraph 2.6. Hypothesis H1c) is based on the SCDT.

H1: Children's prejudice level is affected by their cognitive developmental level.

H1a) A higher general cognitive developmental stage fosters positive outgroup attitudes.

H1b) Higher social-cognitive abilities (empathic perspective taking, perceived intergroup similarity) reduce negative outgroup attitudes.

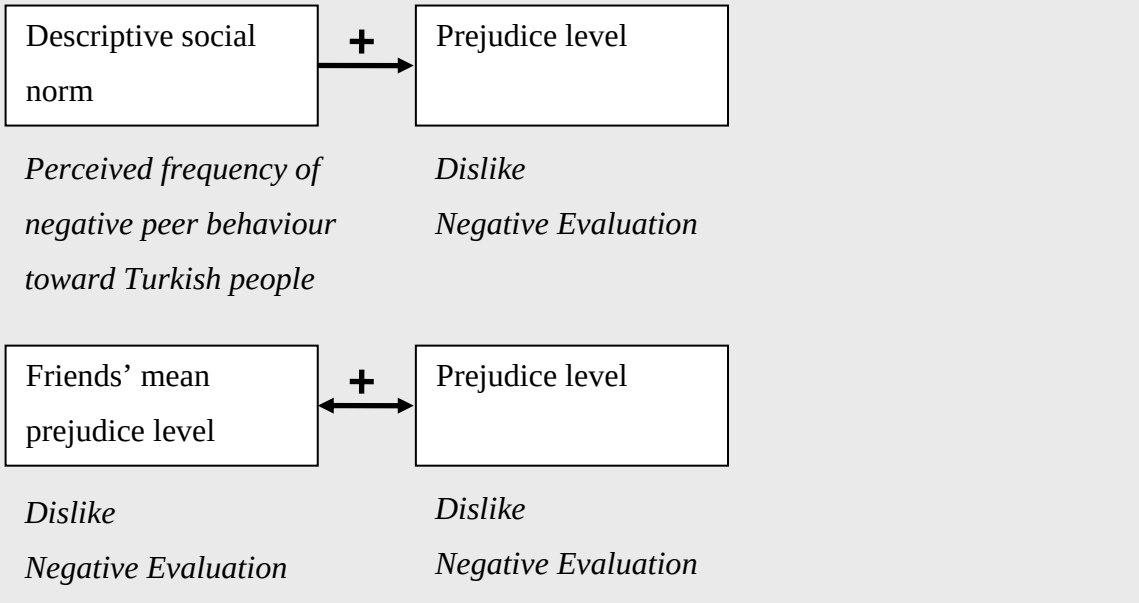
H1c) Social-cognitive abilities mediate the effect of general cognitive developmental stage on outgroup attitudes.



H2: Children's prejudice level is affected by social influences.

H2a) A descriptive social norm that prejudiced behaviours are commonly shown by ingroup members fosters prejudice.

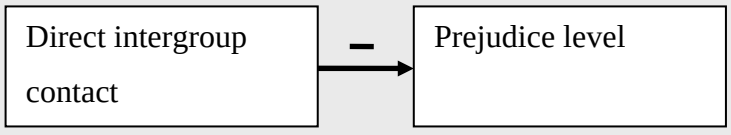
H2b) The attitudes of children and their friends are positively correlated.



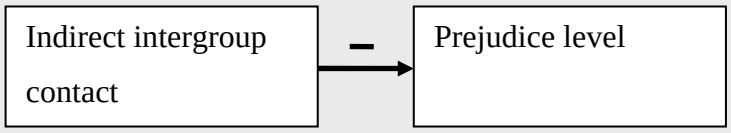
H3: Intergroup contact reduces children's prejudice level.

H3a) Direct intergroup contact reduces prejudice in children.

H3b) Indirect intergroup contact via ingroup-friends' outgroup-friends reduces prejudice.

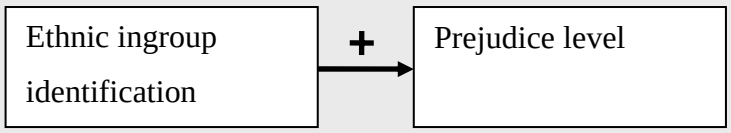


Outgroup-friends Contact frequency — *Dislike Negative Evaluation*



Ingroup-friends' outgroup-friends — *Dislike Negative Evaluation*

H4: A strong ingroup identification with the ethnic ingroup fosters prejudice.



Importance of ingroup membership — *Dislike Negative Evaluation*

4. Data collections 1 and 2

A questionnaire was developed to test the hypotheses based on two data collections with school students enrolled in grades 3 and 4 and grades 5 and 6, respectively. Questionnaire studies with 8- to 13-year-olds will only lead to meaningful results if formulations are simple, concrete, direct, and short, if ambiguous or negative formulations are avoided, and if the instructions are clear and detailed (Borgers & Hox, 2001; Borgers, de Leeuw, & Hox, 2000). Visual illustrations can be of advantage to foster respondents' interest and motivation and to prevent boredom and drop-out (Borgers, de Leeuw, & Hox, 2000). Four response options which are completely labelled seem to be ideal because more than six response options, a neutral scale point, or scales with only the end-points labelled had a negative effect on reliability and item-non-response (Borgers, Hox, & Sikkel, 2003; Borgers, Hox, & Sikkel, 2004). It is important to stress anonymity of the surveying as (especially older) children tend to be distrustful (Borgers, de Leeuw, & Hox, 2000) and in order to reduce social desirability bias (Paulhus, 1991). In the classroom, this can be done by separating students physically (separate desks, books or satchels on the table between desk-mates), by emphasising that they should not put identifying marks on the questionnaire, and by assuring them that nobody but the researcher will see their responses. With regard to social desirability biases, self-administered questionnaires seem to be superior to interviews (De Leeuw, Hox, Kef, & Van Hattum, 1997). Questionnaire studies with elementary school students also have to take into account the students' limited verbal and writing abilities. Sitting in on lectures on two school days in a 3rd-grade class (8- to 9-year-old children) and discussions with an elementary school teacher provided important insights.

The development of the questionnaire was done in three stages. First, a review of measures used in international research with children provided ideas for items and scales (interested readers find a summary in appendix 11.1). Expert feedback was used to improve the chosen

measures. Expert feedback was provided by Professor Frances E. Aboud, two colleagues with experiences in surveying children (M.A. Reiner Becker and Dipl. Psych. Claudia Neumann), an elementary school teacher, and the headmistress of an elementary school with grades 1 to 6 whose school did not participate in the study. The applicability of the questionnaire was tested in two pretests that also provided information for the selection and further improvement of items. Pretests are meant to reveal potential problems with comprehension, misunderstandings, respondents' troubles with certain items, a lack of motivation or interest in the items in the target group, and the appropriateness of survey duration (Kurz, Prüfer & Rexroth, 1999). As suggested by Prüfer and Rexroth (2000) a two-phase pretest with cognitive techniques first and a Standard-Pretest as a second step was done. The first draft of the questionnaire was pre-tested with four children (a 7-year-old girl, a 9-year-old boy, a 10-year-old girl, and an 11-year-old boy enrolled in grades 2 to 6). The respondents filled in the questionnaire which took 25 to 40 minutes. Afterwards, the children were asked how they understood certain items, how they had chosen a response, and if it had been easy or difficult to answer the items. A revised and abbreviated version of the questionnaire was used in a Standard-Pretest with 20 school students without immigration background who were enrolled in grade 3 (interested readers find the pretest results in appendix 11.2). The surveying lasted 55 minutes. Children worked with concentrated attention. There were nearly no questions of comprehension. After the Standard Pretest, the questionnaire was modified and abbreviated because there were only 45 minutes available for surveying in the school classes.

The headmasters of 22 of the 57 Hessian elementary schools with grades 1 to 6 which were located in towns with a sufficiently high percentage of immigrant inhabitants to allow for direct contact experiences at school were contacted. Most of the schools were not willing to participate because the schools had to abandon grades 5 and 6 (six schools), because there

were only few immigrant students (three schools), because of a high number of external requests from universities and ministry (two schools), or because teachers feared that the surveying might induce prejudice in their students (two schools). Two of the school committees disagreed to participating in the study because they thought that the questionnaire was too complicated and because the elementary school teachers feared that the survey might stir prejudice in their students, respectively. Seven schools agreed to participate (see appendix 11.5 for a description of the schools) and the study was authorised by Hessen's ministry of education and cultural affairs according to §84 HSchG 2002.

Data were collected from May to July in 2005 (data collection 1) and from May to June in 2006 (data collection 2). School 6 did not take part in data collection 2 with reference to time pressures. Some students did not get parental permission to participate or were missing during the surveying (see appendix 11.6). The teachers worked outside the class with students without parental permission or gave them additional tasks. Systematic differences between the students and schools who did vs. did not participate in the study would bias the results. But it seems highly likely that schools and students did not participate due to reasons that were not related to the concepts that were assessed. For the schools such reasons would be time-pressure or lack of interest in scientific studies. Parents might not allow participation because they do not trust anonymity of the surveying or do not support surveying in schools. Some of the students were missing because they had other lectures, took part in trainings, or were ill. At both data collections, most of the respondents filled in the questionnaire with concentration and listened attentively to the instructions. There were 531 respondents at data collection 1 and 537 respondents at data collection 2 (see appendix 11.6 for characteristics of the sample). The study focuses on respondents without immigration background. There were 181 respondents without immigration background at time 1 and 206 at time 2. Data could be matched for 142 respondents without immigration background.

5. Manuscripts 1 and 2

Manuscript 1 contains cross-sectional analyses based on the data-collection-2 data. These analyses compared the predictive value of general-cognitive and social-cognitive factors, social influence through friends' attitudes, and direct and indirect contact for the prediction of intergroup attitudes in children. The effects of friends' attitudes and indirect contact could not be assessed based on the longitudinal sub-sample because data for these variables were only available for 70 respondents in this sample. Manuscript 2 presents cross-lagged and mediator analyses based on the longitudinal sub-sample. The analyses were meant to provide information about causal relationships between prejudice in children and the assumed factors of influence ingroup identification, descriptive norm, and direct contact. General empathic perspective taking and perceived intergroup similarities were tested as potential mediators of the assumed effects of ingroup identification, descriptive norm, and contact on prejudice. The decision which scales or items were used in the analyses reported in manuscript 1 and 2 was based on the hypotheses and on the number of missing values, the *Skewness* and *Kurtosis* of the items, the results of Factor Analyses, and the internal consistencies of scales (see appendix 11.7 and appendix 11.8).

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To Like or not to Like: Developmental and Social Psychological Predictors of Ethnic Intergroup Attitudes in Children

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Abstract

In the present study, the major predictors of prejudice assumed in Social Cognitive Developmental Theory and social psychological theories such as contact and extended contact hypothesis as well as in theories of social influence were compared. Attitudes toward Turkish immigrants were assessed of 192 German elementary school students without migration background (9 to 14 years, 43% female). Data showed that, although, as expected, varying with age, cognitive skills did not significantly predict intergroup attitudes. Direct contact and empathic perspective taking were the most important predictors. Indirect contact predicted prejudice only when direct contact was not controlled for. Influence from friends' attitudes was not significant when other predictors were included in the regression. The results indicate that fostering intergroup friendships and empathic perspective taking seems to be a promising strategy for positive intergroup relations.

Ethnic prejudice is one of the major challenges of modern civil societies. The prevention of prejudice presupposes empirically validated knowledge about its development (Wagner & Farhan, 2008). Empirical studies show that even preschoolers are able to distinguish ethnic groups and their members based on visible attributes like skin color (Davey, 1983; Katz, 2003). At the age of four or five years, children typically show a clear ingroup bias in the evaluation of ethnic in- and outgroup members (e.g. Aboud, 1999; Aboud, 2003; Bigler & Liben, 1999; Black-Gutman & Hicksen, 1996; Griffith & Nesdale, 2006). Thus, ethnic bias can already be observed at a rather early stage of individual human development.

The relation between age and intergroup attitudes is not always linear: Empirical findings from Western industrialized countries typically show an increase in intergroup bias from preschool age until the age of seven years (longitudinal study: Aboud, 1993; cross-sectional studies: e.g. Clark, Hocevar & Dembo, 1980). Decreasing intergroup bias after the age of seven years has been found in cross-sectional (e.g. Clark, Hocevar & Dembo, 1980; Doyle, Beaudet, & Aboud, 1988; Griffith & Nesdale, 2006; Zakrisson, 1992) and longitudinal studies (Aboud, 1993: kindergarten to grade 3). Some studies indicate renewed intergroup bias in adolescents (Teichman, 2001; Zakrisson, 1992).

Outgroup derogation occurs with regard to certain groups and especially in the case of intergroup conflict (e.g. Rutland, 1999: British 12-year-olds toward Germans; Bennett et al., 2004: Georgian and Russian 6-year-olds toward Azerbaijanis and Ukrainians toward Georgians; Bar-Tal & Teichman, 2005: Jewish Israeli children toward Arabs).

Developmental approaches to the explanation of prejudice in children focus predominantly on individual cognitive development – given that the child does not grow up in an extraordinarily racist surrounding (e.g. Aboud, 1988). Other researchers (e.g. Bar-Tal & Teichman, 2005) focus more strongly on social and environmental factors like parental

and peer group influence and intergroup contact. To our knowledge, empirical studies have so far tested either developmental (e.g. Clark, Hocevar, & Dembo, 2004; Zakrisson, 1992) or social factors (peer impact: e.g. Aboud & Doyle, 1996; Ritchey & Fishbein, 2001; contact: Paolini, Hewstone, Cairns, & Voci, 2004; Stephan & Rosenfield, 1978; contact and peer impact: e.g. Kiesner, Maas, Cadinu, & Vallese, 2003) but they have not yet compared these two explanatory traditions with each other. It will be our aim to fill in this gap in research empirically.

The developmental psychology perspective

Aboud (1988) proposed in her Social-Cognitive Developmental Theory (SCDT) that cognitive limitations in the developing child determine the structure of attitudes whereas environmental inputs affect the content of attitudes. According to the SCDT, prejudice in 4- to 7-year-olds is based on different cognitive processes as compared to 7- to 12-year-olds. Aboud relied on the theory of cognitive stages by Piaget (1988) who distinguished development of structures and acquisition of specific contents and assumed that cognitive structures pass through a sequence of cognitive stages.

The preoperational stage (~ 1½ or 2 years to 6 or 7 years) is characterized by the acquisition of language, internal representations, and images as well as a lack of reversibility (i.e. understanding that numbers or objects can be changed and then returned to their original state) and conservation (e.g. of quantity). In the preoperational stage children's social information processing is based on perceptions of similarities and dissimilarities (Aboud, 1988). This implies that children like people who are similar to them in perceivable attributes like language, skin color, size, or speediness more than dissimilar people. During the acquisition of the concept *group,* the child perceives different groups as being dissimilar

to each other. Children strongly prefer groups they belong to over other groups because they perceive them as completely different to their own group.

During the concrete operational stage (7 or 8 years to 10 or 11 years) children acquire concrete, object-bound operations, i.e. categories (simple or multiple sorting of objects into classes), relations (association, dissociation), numbers, seriation (sort objects according to an attribute like size), and conservation of quantity (Piaget, 1988). With these cognitive abilities and increasing flexibility the child realizes that other groups are similar to the ingroup in many respects (Aboud, 1988). This and the appreciation of inter-individual variances within groups result in a decrease in prejudice.

In the formal operational stage (11 to 13 years) children acquire the ability to think abstractly, reason logically and draw conclusions from the information available (implications, incompatibility, reversibility, logical proofs; Piaget, 1988). Prejudice is hypothesized to further decrease when the child uses individual characteristics instead of group membership and stereotypes in order to decide if an individual is liked or disliked (Aboud, 1988). Aboud assumed that the effect of *general* cognitive development, i.e. the acquisition of more sophisticated cognitive tools, on intergroup attitudes is mediated by *social-cognitive* abilities, i.e. by the application of cognitive abilities in the processing of social information. Relevant social-cognitive abilities are perceived intergroup similarity and intra-group homogeneity, multiple classification, and perspective taking.

Aboud (1988) cautioned that developing (social-)cognitive abilities will only lead to less prejudiced attitudes if the general level of prejudice in the child's social environment is not too high. Otherwise prejudice will remain high despite increasing cognitive abilities. According to a modification of the SCDT (Aboud, 2005; Aboud & Amato, 2001) parents and siblings are the most important sources of social impact on young children whereas peers and their norms become more and more relevant with increasing age. The revised

SCDT expands the theoretical framework by including socialization, contact, and identity development as relevant explanatory concepts and it thus connects developmental theory with social psychological models.

The social psychological perspective

Bar-Tal and Teichman (2005) presented an integrative model of the formation of stereotype and prejudice that focused on the intra- and intergroup contexts in which the child grows up. Ingroup members share specific ideas, attitudes and feelings about groups. This *shared psychological intergroup repertoire* affects attributions, evaluations, judgements, and decisions about other groups. If individuals self-categorize as a member of a certain group, they are very likely to agree with ingroup members and to validate own beliefs by comparison with ingroup members' attitudes (see also Festinger, 1954; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). Just as the revised SCDT, the integrated model lists socialization, social influence through personal communication, culture and social institutions as well as direct intergroup experiences as influencing factors on intergroup attitudes.

Peer group influence. Social psychological models of social influence (Kelman, 1958, 2005; Latané, 1981; Nowak, Szamrej & Latané, 1990) share the assumption that individual attitudes and behavior are influenced by other individuals (see also Festinger, 1954) and social groups (see also Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). In the case of children, important sources of influence are classmates and friends.

Empirical results support the impact of social influence on adults (Latané, 1981; Nowak, Szamrej & Latané, 1990; Sinclair, Lowery, Hardin, & Colangelo, 2005). With regard to adolescents, empirical results are mixed: While the respective ingroup and the

stigmatized outgroups were both similarly evaluated by friends (Kiesner, Maass, Cadinu, & Vallese, 2003), adolescents' attitudes toward a number of outgroups could not be predicted by their friends' attitudes in another study (Ritchey & Fishbein, 2001). In a study with Canadian third and fourth graders, children's own attitudes correlated significantly positive with the attitudes *assumed* for their friends (r = .47 to .75) but not with friend's *actual* attitudes (Aboud & Doyle, 1996). This shows that it is important to assess peer attitudes directly instead of asking children about their friends' attitudes.

Observational and experimental studies show that a social norm that rejects prejudice and discrimination can have a positive effect on intergroup attitudes and relations while a norm that accepts prejudice and discrimination can foster negative attitudes in adults (e.g. Crandall, Eshleman, & O'Brien, 2002; Ford, Wentzel, & Lorion, 2001; Lowery, Hardin, & Sinclair, 2001) as well as in children (e.g. Nesdale, Maas, Durkin, & Griffith, 2005; Rutland, Cameron, Milne, & George, 2005).

Direct and indirect intergroup contact. Intergroup contact has repeatedly been shown to be one of the most effective ways of reducing intergroup prejudice (Pettigrew & Tropp, 2006). This is especially the case if the situation fulfils the conditions of optimal intergroup contact specified by Allport (1954) and Pettigrew (1998): members of different groups are in the same status position (at least in the contact situation), the contact is cooperative and interdependent, both groups share a common goal, authorities approve of the contact situation, and the situation has intergroup friendship potential. Interestingly, in Pettigrew and Tropp's (2006) meta-analysis, similar mean effect sizes emerged for different age groups: mean r was -.24 for children between 1 and 12 years, -.21 for adolescents, -.23 for college students, and -.20 for adults. Thus, there is good reason to propose that intergroup contact also influences the level of prejudice in children.

Wright, Aron, McLaughlin-Volpe & Ropp (1997) presented the Extended Contact Hypothesis according to which the mere knowledge that an ingroup member has a close relationship with an outgroup member can be sufficient to result in more positive intergroup attitudes. Extended or indirect contact is also possible in areas with a low percentage of outgroup members where direct friendships are more difficult to achieve. Extended contact is assumed to affect intergroup attitudes for a number of reasons: The ingroup member with close relations to an outgroup member serves as a positive exemplar and provides information about ingroup norms, the ingroup member's outgroup friend serves as a positive outgroup exemplar which helps to modify negative stereotypes, fear and negative expectations about the outgroup, and the association between the ingroup member and his or her outgroup friend can lead to the inclusion of the outgroup member in the observer's self. More positive expectations regarding intergroup contact might also lead to increased willingness to interact with members of the outgroup. Empirical support for positive effects of indirect contact on intergroup attitudes was found for adults (e.g. Wright et al., 1997; Paolini, Hewstone, Cairns, & Voci, 2004) and also for children (e.g. Cameron, Rutland, Brown, & Douch, 2006). Christ, Tausch, Hewstone, Wagner, Hughes, & Cairns (under review) showed that indirect contact is especially effective when the percentage of outgroup members is low and the possibilities of direct contact therefore limited.

Hypotheses

Based on the above theoretical considerations from developmental and social psychology, we formulate the following hypotheses:

Hypothesis 1:

There are age-related differences in intergroup attitudes showing a decrease in prejudice between the age of 8 and 12 years.

Hypothesis 2:

Prejudice level in children is negatively correlated to higher (socio-) cognitive abilities.

a) Children in the concrete or formal operational stage of thinking are less prejudiced than children on the pre-operational stage.
b) Prejudice level in children is negatively related to perspective taking abilities
c) The effect of general cognitive stage is mediated by empathic perspective taking.

Hypothesis 3:

Prejudice level in children is positively related to ingroup friends' prejudice.

Hypothesis 4:

Prejudice level in children is negatively related to intergroup contact.

Hypothesis 5:

Prejudice level in children is negatively related to indirect contact.

Hypothesis 6:

Social-cognitive variables, peer impact, direct contact, and indirect contact mediate the effect proposed in hypothesis 1.

METHOD

General procedure and respondents

The data are part of a research project on children's prejudice incorporating two measurement points one year apart from each other. The data used here were collected between May 15th and June 13th 2006 in 27 classes at six German elementary schools comprising grades one to six. The surveying was done by the first author in grades four and six. Data were collected in the classroom; data collection took 25 to 45 minutes. The mean class size was 22.70 students (*SD* = 2.66, range from 19 to 29). Only children with parental permission filled in the questionnaire. Mean participation rate per class was 88%. Based on students' self-categorization and questions regarding their (grand-)parents' country of birth, 38% of the participants were of German background, 17% had a Turkish immigration background and 45% had another immigration background.

The total number of participants was 537 (277 male and 261 female participants; 295 fourth-graders and 246 sixth-graders; 17 ethnic groups). The largest group were students without migration background (*N* = 206). The presented analyses focus on attitudes of students without migration background toward members of the largest immigrant group, Turkish immigrants. There were 192 respondents without migration background who had less than 5% missing values in the relevant variables (111 in grade four and 81 in grade six; 109 male and 83 female). Age distribution was as follows: 9 years (*N* = 15), 10 (*N* = 80), 11 (*N* = 19), 12 (*N* = 50), 13 (*N* = 26), 14 (*N* = 2) with a mean age of 10.99 (*SD* = 1.28).

Measures

Predictors of prejudice

Research on intergroup relations based on correlational data often uses subjective measures for assessing predictors. For example, respondents are asked whether they have

"no", "some" or "a lot" of contact with outgroup members, how they assess attitudes in their circle of friends, etc. The problem with this kind of operationalization is that researchers often cannot be sure whether their subjects' reports really constitute a precondition for prejudice or whether respondents take their reports as justifications of their prejudice. Therefore, independent variables in this study were assessed either by ability tests (general cognitive ability) or by sociometric indicators (e.g. contact, friends' attitudes) which are less prone to these kinds of biases.

As an indicator for respondents' general cognitive developmental stage a translated and modified version of the Swedish "Likhetsrelationer 2" (Bergström, 1990), which was developed for testing in class, was used. The test is based on the assumption that the term chosen by an individual for describing an object or a process allows conclusions about the cognitive level the individual operates on. Respondents are asked to choose out of four alternatives that response which describes the similarity relationship between two objects (e.g. armchair and sofa) best. Each response option represents one of five similarity relations. Egocentric similarity relations (e.g. *are comfortable*) are very close to the individual's experience and represent the preoperational stage. Perceptual similarity relations (e.g. *they have four legs*) and functional similarity relations (e.g. *you can sit on them*) indicate the concrete operational stage. Conceptual similarity relations (e.g. *are furniture*) represent formal operational thinking. The original version with 15 items was tested with 542 Swedish students enrolled in grades 2 to 11 by Bergström (1990) and proved to be internally consistent (Cronbach's Alpha = .81; Guttman's split-half =.81). As expected, students enrolled in different school grades differed significantly in their mean scores in line with Piaget's theory. As the "Likhetsrelationer 2" is meant to be a general cognitive developmental measure, it should correlate with tests assessing verbal and logical

intelligence. This was the case with a verbal synonym test and a logical test with series of figures in Bergström's study (r = .18 each).

In our study an abbreviated and translated version of the "Likhetsrelationer 2" was used which included five of the 15 items. In order to assign students to one of the three cognitive developmental stages (preoperational, concrete operational, and formal operational), we used the frequency with which each of the similarity relations was chosen. Each student was classified according to his or her most frequently chosen similarity relation. For example a child that chose egocentric similarity relations more frequently than the other similarity relations would be classified as preoperational. Cronbach's Alpha for the five items was .65 (N = 185). Corrected item-scale correlations ranged from .35 to .58 and the elimination of any of the items would reduce internal consistency.

The mean cognitive developmental stage is significantly higher for grade 6 (2.75, SD = 0.54, N = 61) as compared to grade 4 (2.41, SD = 0.79, N = 81; mean difference -0.35, SD = 0.12, $t_{(140)}$ = -2.96, p < .01; Levene test: F = 26.45, p < .001) which indicates that the measure validly assesses the general cognitive stage.

Empathic perspective taking was assessed with eight items. The students' task was to imagine two fictive situations in which a classmate of the same gender was maltreated by other peers ("Imagine that you observe how others insult or make fun of a classmate"; "Imagine that you observe how a classmate is excluded from a game."). Respondents rated how likely they would show each of four empathic reactions in the two given situations ("I feel sympathy for the classmate", "The others' behavior makes me angry", "I think the others' behavior is nasty", and "I think the others' behavior is unjust") on a 4-point-scale: 1 (*definitely not*), 2 (*rather not*), 3 (*probably*), and 4 (*for sure*). The eight items constitute a scale with an internal consistency Cronbach's Alpha of .90 (N = 189). The corrected item-

scale correlations ranged from .60 to .77 and internal consistency would decrease if any of the items would be deleted. The items were averaged and the scale's mean score was 3.37 (*SD* = 0.58). It was clearly but not too severely skewed (*Skewness* = -0.76, *SD* = 0.18; *Kurtosis* = -0.19, *SD* = 0.35).

To assess peer group influence, the names of all students in class were written on the blackboard and numbered all the way through. Then we asked the students to nominate three classmates as their best friends in class by noting the numbers next to the classmates' names. This is an established measure for elementary school and older children (e.g. Dollase, 2002; Ritchey & Fishbein, 2001; Wagner et al., 2001). The intergroup attitude of the reference group was assessed by averaging the attitudes of the nominated friends – provided that the nominated classmates had participated and filled in their own sociometric number. Friends with an immigrant background were not taken into account here in order to disentangle direct contact experience and effects of friends' attitudes. Data were available for 132 students. The mean was 2.40 (*SD* = 0.58; range 1 to 4) and the distribution of responses was close to normal (*Skewness* = 0.26, *SD* = 0.21; *Kurtosis* = 0.00, *SD* = 0.42).

To get an impression of the construct validity of our peer group influence indicator, respondents also had to answer four items assessing the subjectively perceived descriptive norm regarding behavior toward Turkish immigrants. These items were adapted, simplified and modified from Bacher (2001). Students were asked to rate on a scale from 1 (*very seldom or never*) to 4 (*every day*) how often they perceived negative peer behavior directed at people with Turkish immigrant background ("Jokes are being made at the expense of Turkish people." and "Turkish children get insulted."). Both items were asked twice: once for the classroom and once for the students' friends ("Think about your class. Tick the right answer." and "Think about your friends. Tick the right answer."). A scale consisting of the

four items showed a Cronbach's Alpha of .80 (N = 188). The correlation between the objective single indicator and the subjective scale was r = .20 (p < .05, N = 132). This significant correlation implicates that the objective assessment of peer group influence used is valid.

Direct contact was measured with another sociometric indicator. Participants were asked to list the given names of their best friends. This could be classmates, schoolmates, or friends from their neighborhood, clubs, etc. There were three separate lists for friends whose families came from Germany, Turkey, or another country. The number of Turkish friends was taken as an indicator for direct contact with Turkish immigrants. Responses ranged from 0 to 6 with a mean of 1.09 (*SD* = 1.32). The measure was skewed (*Skewness* = 1.29, *SD* = 0.18; *Kurtosis* = 1.59, *SD* = 0.35). To get closer to normal distribution, all values higher than 4 were subsumed under the label *4*. The recoded variable had a mean of 1.05 (*SD* = 1.19; *Skewness* = 0.82, *SD* = 0.18; *Kurtosis* = -0.52, *SD* = 0.35).

To validate the sociometric information, students were also asked to rate the frequency of their contacts with children of Turkish origin at school ("How often do you talk to or play with Turkish children at school?") and in their leisure time ("How often do you talk to or play with Turkish children in the afternoon?"). A 4-point-scale was used ranging from 1 (*very seldom or never*) to 4 (*every day*). The sociometric friendship list correlated to r = .37 (p < .001, N = 192) with contact at school and to r = .33 (p < .001, N = 192) with contact in leisure time. This implies validity of the friendship lists.

Based on the sociometric questions about the students' three best friends in class and on the number of Turkish friends listed in the second sociometric measure, the actual number of Turkish friends listed by the respondents' best friends in class was calculated as

an objective measure of indirect contact. Only the average number of Turkish friends listed by the nominated friends of German origin in class was used. These data were available for 133 students. The mean number of indirect friends was 1.13 (*SD* = 1.07; range 0 to 4). The indicator was not severely skewed (*Skewness* = 0.78, *SD* = 0.21; *Kurtosis* = -0.08, *SD* = 0.42).

Dependent measure: Intergroup Attitudes

A single item assessing dislike of Turkish people living in Germany was used, a procedure which has been used successfully with school students before (e.g. Avci-Werning, 2004; Bennett et al., 2001; Durkin & Judge, 2001; Verkuyten & Thijs, 2001). The respondents' task was to cross one of the response options to the item "I like Turkish people living in Germany". Happy to sad faces illustrated the four response options 1 (*very much*), 2 (*much*), 3 (*not so much*), and 4 (*not at all*). Mean score was 2.55 (*SD* = 0.75; *Skewness* = 0.14, *SD* = 0.18; *Kurtosis* = -0.35, *SD* = 0.35, indicating that responses in this item do not differ meaningfully from normal distribution). Dislike of a number of other groups was assessed as well. Dislike of Turkish immigrants was significantly and positively correlated with dislike of immigrants in general ($r = .51$, $p < .001$, $N = 191$) and dislike of people speaking a foreign language ($r = .50$, $p < .001$, $N = 190$). In addition, there were two sociometric questions about the respondents' five most and five least preferred neighbors in class. The number of Turkish classmates listed as most preferred ($r = -.17$, $p < .05$, $N = 192$) and as least preferred neighbors ($r = .15$, $p < .05$, $N = 192$) was significantly correlated with dislike of Turkish immigrants in general.

PRELIMINARY DATA ANALYSES

Students from the same class in the same school might be more similar to each other than students from different classrooms due to a shared community background (moral norms and values, socio-economic status, ethnic composition, religion, education program) and shared experience (teachers, social and physical environment, experiences). If multilevel data (for e.g. students nested in classes) violate the statistical condition of independent observations, this will lead to underestimation of standard errors in conventional statistical tests (Hox, 2002). This in turn leads to spuriously significant results, i.e. significance tests reject the null hypothesis far more often than the nominal alpha level suggests.

To test the amount of interdependence of observations due to the nested structure of the data, a multilevel analysis was performed with the SPSS14 feature *MIXED* for the dependent variable dislike of Turkish immigrants. An unconditional means model computed the variability in the outcome variable between level-2 units (27 classes; instead of the schools because the students came from only six different schools). The individual scores of dislike of Turkish people living in Germany (first level) were modeled as the sum of the mean dislike in the respective classroom and the individual student's deviation from the classroom mean ($Y_{ij} = \beta_{0j} + r_{ij}$). The mean dislike toward Turkish people living in Germany in each classroom (second level) was calculated by adding together the grand mean in dislike of Turkish people across all students and classes and the respective class' deviation from the grand mean ($\beta_{0j} = \gamma_{00} + u_{0j}$). The grand mean for dislike of Turkish immigrants across all students and classes was estimated to be $\gamma_{00} = 2.54$ (confidence interval with 95% probability: 2.42 to 2.67). This estimate differs significantly from zero ($T_{(18, 901)} = 41.27$, $p < .001$). The residual variance, i.e. the variability within classes, was estimated to be 0.54 and differed significantly from zero (*Wald Z* = 9.07, $p < .001$). In contrast, the variability between classes was not significant (0.02, *Wald Z* = 0.57, $p = .57$). The intra-class

correlation was (0.02) / (0.02 + 0.54) = .04 which implies that 4% of the variance in dislike of Turkish people living in Germany was between classes. As between classes variance of dislike of Turkish people living in Germany was not significant, the nested structure of the data will not be taken into account.

RESULTS

Age and prejudice against Turkish immigrants

Inter-correlations of variables are presented in Table 1. Age was recoded so that students who are 13 or 14 years old are grouped together (13 years and older) because the sample included only two 14-year-olds. As can be seen, age is significantly and negatively correlated with prejudice against Turkish immigrants (r = -.18) which supports hypothesis 1. A linear regression with age as a single predictor shows that the negative relationship between age and prejudice is linear (R^2_{adj} = .02, $F_{(2, 191)}$ = 3.30, $p < .05$, β_{age} = -.71, t = -0.46, p = .65, β_{age^2} = .53, t = 0.34, p = .73). This is also supported by the mean dislike scores for the different age groups which show a steady decrease of prejudice with increasing age (see table 2).

Predictors of prejudice against Turkish immigrants

General cognitive development. In all age groups more than half of the participants were categorized into formal operative stage (9-year-olds: 69%, 10-year-olds: 58%, 11-year-olds: 64%, 12-year-olds: 81%, 13-to-14-year-olds: 78%). The percentage of respondents, who were categorized to be in the pre-operational stage (9-year-olds: 23%, 10-year-olds: 19%, 11-year-olds: 9%, 12-year-olds: 3%, 13-to-14-year-olds: 9%) and in the concrete operational stage (9-year-olds: 8%, 10-year-olds: 24%, 11-year-olds: 27%, 12-year-olds:

17%, 13-to-14-year-olds: 13%), decreased, as expected, with age. Thus, general cognitive development was at a high level.

The mean dislike toward Turkish people was higher in pre-operational stage (*mean* 2.70, *SD* = 0.80, *N* = 20) as compared to concrete-operational (*mean* 2.45, *SD* = 0.87, *N* = 29) and formal-operational stage (*mean* 2.49, *SD* = 0.70, *N* = 102). As the pattern of mean scores fitted the expected pattern, a Univariate Analysis of Variance was conducted with dislike of Turkish immigrants being the dependent variable and the stages of general cognitive developmental being the independent variables. This analysis showed that students in the three cognitive stages did not differ significantly in their mean dislike of the ethnic outgroup ($F_{(2, 148)} = 0.78$; $p = .46$; $Eta^2 = 0.01$) [1]. A planned contrast comparing preoperational versus concrete and formal operational stage (-1, 0.5, 0.5) was not significant, either ($F_{(1, 148)} = 1.56$; $p = .21$). To sum up, general cognitive ability does not explain the age effect on prejudice in our sample of school students of 9 to 14 years. This contradicts hypothesis 2a.

The lack of a significant effect of the general cognitive stage on prejudice also contradicts hypothesis 2c), which assumed that the effect of the cognitive stage on prejudice is mediated by social-cognitive factors. Aboud (1988) assumed that general cognitive development does not affect prejudice directly but through the application of cognitive abilities in social information processing. If this was the case, general cognitive abilities should be correlated with social-cognitive ones. This was not supported by our data, either: Self-reported empathic perspective taking was not significantly correlated with the general cognitive stage ($r = -.10$, $p = .24$, $N = 139$). A Univariate Analysis of Variance did not show a significant main effect of the general cognitive stage on the self-reported level of empathic

[1] If the data are analyzed for boys and girls separately, the same pattern of results emerges.

perspective taking (mean pre-operational stage: 3.50, *SD* = 0.50, *N* = 16; mean concrete operational stage: 3.40, *SD* = 0.65, *N* = 27; mean formal operational stage: 3.33, *SD* = 0.57, *N* = 96; $F_{(2, 138)} = 0.68$, $p = .51$, $Eta^2 = 0.01$).

Social-cognitive and social psychological predictors of intergroup prejudice. As can be seen in table 1, prejudice is negatively correlated with empathic perspective taking (*r* = -.26), positively related to peer influence (*r* = .28), and negatively related to intergroup contact (*r* = -.30) and to indirect contact (*r* = -.25). These data patterns are in line with hypotheses 2b to 5.

In order to get an impression of the *relative* importance of the variables as predictors of prejudice, a stepwise multiple regression analysis was calculated including age in the first step and all other predictors (except for general cognitive ability) in the second. The information for all seven variables was available for 132 respondents.[2] One case was excluded because its high Mahalanobis distance suggested that it might be a multivariate outlier. Afterwards there was no indication of univariate[3] or multivariate outliers[4]. As can be seen in table 3, age as a single predictor ($\beta = -.18$, $p < .05$, $N = 131$) explained 3% of the variance in prejudice ($F_{(1, 130)} = 4.51$, $p < .05$). When the other predictors were included in step 2, the beta-weight of age was not significant anymore (-.13, *p* = .13). The amount of

[2] Tabachnik and Fidell (2001) suggest as a rule of thumb that tests for significance of multiple *R* should not be computed if the sample size is smaller than 50 + 8m with m being the number of independent variables (50 + 8*5 = 90) and that tests for significance of individual predictors should only be computed if the sample size available is larger than 104 + m (104 + 5 = 109). The sample size of the current study justifies both tests.

[3] McClelland (2000) suggests that a case can be perceived as a univariate outlier if it has a *studentized deleted residuum* larger than 3.6 for approximately 100 cases and an error probability of .05. In the current study, *deleted studentized residuals* ranged from -2.52 to 2.82.

[4] A case can be classified to be a multivariate outlier if the *Mahalanobis distance* of the given case is larger than the *Chi²* value with the *degrees of freedom* being the number of variables and the significance level of $p < .001$ (Tabachnik & Fidell, 2001). Here, the *Mahalanobis distance* ranged from 0.91 to 17.14 and it was smaller than $Chi^2_{(df = 5,\ p < .001)} = 20.52$ for all of the cases. This and the fact that *Cook distance* ranged from 0 to .10, i.e. is clearly smaller than 1, indicates that none of the cases had to be excluded as potential multivariate outlier (Tabachnik & Fidell, 2001).

explained variance rose to 22% ($F_{(5, 130)} = 8.29$, $p < .001$; change in explained variance $\Delta F_{(4, 125)} = 8.96$, $p < .001$). Perspective taking ($\beta = -.30$, $p < .001$) and direct contact ($\beta = -.20$, $p < .05$) were significant predictors. The regression weights of peer group influence ($\beta = .10$, $p = .26$) and indirect contact ($\beta = -.12$, $p = .18$) were not significant when perspective taking and direct contact were included simultaneously.

Since indicators of direct and indirect contact can be considered to be similar and could thus produce co-linearity effects, we recalculated the regression analyses without direct contact. Again, the same case had to be excluded as a potential multivariate outlier because of a Mahalanobis distance larger than $Chi^2_{(df = 4, p < .001)} = 18.47$. Data show that the regression weight of age was decreased from $\beta = -.18$ ($p < .05$; $R^2_{adj} = .03$, $F_{(1, 130)} = 4.51$, $p < .05$) to $\beta = -.16$ ($p < .10$) when empathic perspective taking, peer influence, and indirect contact were included in step 2 ($R^2_{adj} = .19$, $F_{(4, 130)} = 8.76$, $p < .001$, $\Delta F_{(3,126)} = 9.87$, $p < .001$; *excluded studentized residuals* –2.30 to 2.80, *Mahalanobis distance* 0.77 to 17.07, *Cook's distance* 0 to 0.10; *tolerance* .79 to .91). Empathic perspective taking ($\beta = -.33$, $p < .001$) and indirect contact ($\beta = -.19$, $p < .05$) added significantly to the prediction of dislike of Turkish immigrants whereas peer influence did not ($\beta = .11$, $p = .24$).

Hypothesis 6 assumes that empathic perspective taking and peer group influence, as well as direct and indirect contact experiences may mediate the relation between increasing age and decreasing dislike of Turkish immigrants. Foregoing data analyses showed that only perspective taking and direct contact – perhaps also indirect contact – are significant predictors of prejudice and thus candidates for mediation of the age effect. Table 1 shows that age was significantly but negatively correlated with empathic perspective taking ($r = -.16$, $p < .05$, $N = 189$) which was against our expectations. According to this, perspective

taking cannot mediate the age-prejudice relationship, either. In line with the expectations, age was positively and significantly correlated with direct ($r = .26$, $p < .001$, $N = 192$) and indirect contact ($r = .26$, $p < .01$, $N = 133$). Whereas age alone was a significant predictor for dislike of Turkish immigrants ($\beta = -.18$, $p < .05$, $N = 192$), it was not significant when direct contact was added ($\beta_{age} = -.11$, $p = .12$; $\beta_{contact} = -.27$, $p < .001$). The Sobel test implied a significant mediation (*Sobel* $Z = -2.46$, $p < 05$). With regard to indirect contact, the age effect was not significant when indirect contact was added ($\beta_{age} = -.12$, $p = .17$; $\beta_{indirect\ contact} = -.22$, $p < .05$). The Sobel test implied a marginally significant mediation (*Sobel* $Z = -1.96$, $p < .10$).

DISCUSSION

The data of 192 German fourth- and sixth graders without migration background supported our basic assumption that age and dislike of Turkish immigrants are significantly and negatively correlated. As was assumed in the SCDT (Aboud, 1988), older students are less prejudiced than younger ones. Based on cognitive developmental theories on intergroup attitudes in children and on social psychological theories, such as social impact, direct and indirect intergroup contact hypothesis, we formulated hypotheses to explain this effect.

Data were not in accordance with the assumption that general cognitive abilities might mediate the age-prejudice relation: There was no significant difference in dislike of Turkish immigrants between respondents categorized to be in the pre-operational stage and those categorized to be in concrete or formal operational stage. In accordance with Aboud's (1988) assumption that there is no direct effect of general cognitive development on prejudice but that cognitive abilities affect prejudice through the application in social information processing, general cognitive effects might be completely mediated by social

cognitive factors. In contrast with this assumption, there was no significant correlation between the general cognitive stage and the social cognitive measure (empathic perspective taking) and there was no significant main effect of the general cognitive stage on empathic perspective taking. The lack of significant effects of the general cognitive stage might in part be due to the fact that 87% of the students were categorized to be in the concrete or formal operational stage.

Consistent with our assumptions, a higher level of self-reported empathic perspective taking was significantly related to more positive intergroup attitudes. However, contrary to expectations, empathic perspective taking and age were negatively correlated. This contradicts the common assumption that children report less prejudice with increasing age because they give more socially desirable answers.

In the sequential regression analysis for prejudice, the regression weight of peer influence was not significant when contact and empathic perspective taking were included simultaneously. This implies that friends' attitudes are a less important source of influence than other factors which matches the results found by Aboud and Doyle (1996) and Ritchey and Fishbein (2001). This rules peer group influence out as a mediator of the age effect on prejudice.

The available survey data supported the assumed negative relation of direct contact with peers of Turkish origin and dislike of Turkish immigrants. In addition, intergroup contact was positively related with age. Even though conclusions about causal relationships are not possible with non-experimental, cross-sectional data, this result points to the importance of social environments providing contact abilities and fostering positive intergroup interactions and intergroup friendships (see also Wagner, Christ, Pettigrew, Stellmacher & Wolf, 2006).

The empirical pattern of results regarding indirect contact is less conclusive. Although indirect contact increased with age, indirect contact through German friends was significantly and negatively correlated with dislike of Turkish immigrants only when direct contact was not considered. This effect might go back to the comparatively high covariation between direct and indirect contact ($r = .39$). The described pattern of results suggests that indirect contact may be important when there are limited possibilities of direct contact. Indirect contact may not have an additional effect on intergroup attitudes in multi-ethnic friendship systems and social environments with many possibilities of direct contact.

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Table 1. Inter-correlations (*Pearson's r*)

	Age	Empathic per-spective taking	Peer group influence	Turkish friends	Indirect contact	*Mean (SD)*
Dislike of Turkish people	-.18* (*N* = 192)	-.26*** (*N* = 189)	.28** (*N* = 132)	-.30*** (*N* = 192)	-.25** (*N* = 133)	2.55 (0.75) N= 192
Age		-.16* (*N* = 189)	-.26** (*N* = 132)	.26*** (*N* = 192)	.26** (*N* = 133)	10.99 (1.28) *N* = 192
Empathic perspective taking			-.24** (*N* = 132)	.04 (*N* = 189)	-.04 (*N* = 133)	3.37 (0.58) *N* = 189
Peer group influence				-.21* (*N* = 132)	-.28** (*N* = 132)	2.40 (0.58) *N* = 132
Turkish friends					.39*** (*N* = 133)	1.05 (1.19) *N* = 192
Indirect Contact						1.13 (1.07) *N* = 133

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2. Mean dislike toward Turkish immigrants in the different age groups.

Age in years	Mean dislike	SD	N
9	2.73	0.46	15
10	2.68	0.79	80
11	2.53	0.91	19
12	2.38	0.64	50
13 or 14	2.39	0.79	28

Table 3. Sequential Multiple Regression with the dependent variable dislike toward Turkish immigrants

	Step 1	Step 2
Age	-.18*	-.13
Empathic perspective taking		-.30***
Peer group influence		.10
Number of Turkish friends		-.20*
Indirect contact		-.12
$R^2_{adjusted}$	.03*	.22***
(N = 131)		$p_{\Delta F}$***

Note. The table lists β-weights (^{t} $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$). $p_{\Delta F}$ stands for the significance level of the change in explained variance.

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Prejudice in school children

Causal analyses of possible factors of influence based on a longitudinal study

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Abstract

The present study tested causal relations of prejudice in children with ingroup identification, descriptive social norms, and intergroup contact. These potential factors of influence were deduced from Social Cognitive Developmental Theory, Social Identity Development Theory, and the Integrative Model of the Formation of Stereotype and Prejudice. Data were collected in the context of a two-wave longitudinal questionnaire study with 127 German 8- to 13-year-olds without migration background. The results of cross-lagged analyses supported the hypotheses that higher ingroup identification leads to more negative attitudes toward ethnic outgroups (H1) whereas contact reduces negative attitudes (H3). These results indicate that programs reducing the importance of ethnic ingroup membership and fostering positive intergroup contact should improve children's intergroup attitudes. Contrary to hypothesis 2, descriptive norm was not supported as a causal factor. Potential mediators were assumed in hypothesis 4. Perceived intergroup similarity mediated the effect from ingroup identification but not from contact on prejudice. There was no empirical support for general empathic perspective taking as mediating variable. Additional results indicated that the relationship between ingroup identification and prejudice as well as contact and prejudice toward Turkish immigrants is bi-directional.

Parents and teachers often expect children to be unprejudiced and ignorant to the existence of different social groups (Katz, 2003). In contrast, empirical studies typically show that children do favour their ethnic or national ingroup over outgroups in trait ascriptions and ratings of liking (Avci-Werning, 2004: 8 to 13 years, Germany; Bennett, Barrett, Karakozov, Kipiani, Lyons, Pavlenko, & Riazanova, 2004: 6-year-olds, Azerbaijan, Georgia, Great Britain, and Russia; Griffith & Nesdale, 2006: 5 to 12 years, Australia; Mitulla, 1997: 11-year-olds, Germany; Rutland, Brown, Cameron, Ahmavaara, Arnold, & Samson, 2007: 7 to 12 years, Great Britain; Teichman, 2001: 4 to 12 years, Israel; Verkuyten & Thijs, 2001: 10 to 13 years, Netherlands).

According to empirical results, ingroup preferences are acquired early in life. Most of the children in a longitudinal study with European-American children developed a slight ingroup preference at the age of three years, which became stronger between the age of three and six years (Katz, 2003). It is important to clarify that children with a clear ingroup bias do not necessarily show outgroup derogation as well. In a study by Aboud (2003), 50 of the 80 white Canadian 3- to 7-year-olds showed a positive ingroup attitude (i.e. they ascribed more positive than negative traits to the ingroup). Of these children, 60% showed a negative outgroup attitude, 16% a neutral outgroup attitude, and 24% a positive outgroup attitude. Other studies indicate that prejudiced attitudes occur only toward specific groups: Derogative attitudes were found only toward some national outgroups (e.g. Ukrainians toward Georgians) and not toward others (e.g. Ukrainians toward Russians) in the 6-year-olds participating in the study by Bennett et al. (2004). Italian 13-year-olds showed negative attitudes toward “gypsies”, Albanians, and Moroccans but neutral to positive attitudes toward other outgroups in a study by Kiesner, Maas, Cadinu, and Vallese (2003).

If some children are unprejudiced whereas others are not, this poses an important question: What is it that makes some children tolerant and others prejudiced? The most influential theories regarding prejudice acquisition and prejudice development in children are *Social-Cognitive Developmental Theory* (SCDT, Aboud 1988) and *Social Identity Development Theory* (SIDT, Nesdale, 1999a). These theories as well as the comparatively new *Integrative Model of the Formation of Stereotype and Prejudice* (Bar-Tal & Teichman, 2005) include assumptions about factors influencing children's intergroup attitudes. Aboud (1988) supposed that there is a qualitative difference between prejudice in 4- to 7-year-olds and prejudice in children older than seven years. According to SCDT, prejudice in younger children is mainly based on cognitive limitations and the specific characteristics of the developing mind. With the acquisition of flexible cognitive abilities around the age of seven years, children typically become more open to social factors like direct contact or social influence through parents or peers. In order to study potential causal influence factors on intergroup attitudes that can be manipulated in the context of prevention and intervention, prejudice was assessed in 9- to 13-year-old children in the study presented here. Limitations in cognitive abilities should not be a main predictor of prejudiced attitudes in this age-group which was also supported by cross-sectional analyses (Farhan & Wagner, under review). One implication is that prejudice in 9- to 13-year-old children should not be qualitatively different from prejudice in adults.

SIDT (Nesdale, 1999a; Nesdale, Maas, Durkin, & Griffith, 2005) contains the assumption that ingroup identification leads to ingroup favouritism which can be transformed into prejudice by additional factors like social norms or intergroup conflict. The Integrative Model of the Formation of Stereotype and Prejudice (Bar-Tal & Teichman, 2005) has a strong focus on the particular social intra- and intergroup context in which prejudice toward specific outgroups develops. Bar-Tal and Teichman assumed that socialization,

culture, and direct experience are important aspects of the acquisition and development of attitudes, affect, and emotions related to other groups. Ingroup views and norms regarding the outgroup are communicated by parents, teachers, peers, (children's) books, and the media. Contact with outgroup members affects intergroup attitudes in children as well.

Ingroup identification, normative social influence, and intergroup contact are discussed as potential causal factors against the background of the relevant social psychological approaches to intergroup attitudes and relevant empirical results. There are only few studies testing causal influences on children's intergroup attitudes in a longitudinal design. As possible mediating variables, perceived intergroup similarity and empathic perspective taking are suggested. Empirical data from a longitudinal study with two waves will be presented and discussed.

Ingroup identification

Ingroup identification plays an important role in Social Identity Development Theory (SIDT) by Drew Nesdale (1999a). This theory represents a modification and extension of the *Social Identity Theory of Intergroup Behaviour* (SIT). In their Social Identity Theory, Tajfel and Turner (1986) assumed that individuals strive for a positive self-concept and use social comparisons with relevant outgroups to evaluate their *social identity* which is based on the socially shared connotations of the groups the individual belongs to (*ingroups*). Individuals want their group to be *positively distinct*, i.e. to come off well in social comparisons, in order to ensure a positive social identity. In addition, SIT includes the assumption that only subjectively identified individuals, whose group membership is internalized into their self-concept, show intergroup differentiation.

In the SIDT four sequential stages of social identity development with varying social motivations and behaviours are described (Nesdale, 1999a; Nesdale, Maas, Durkin, &

Griffith, 2005): In the first stage (*undifferentiated*), infants and young children respond to those objects that catch their attention. Racial cues are typically not salient before the age of two or three years. Stage two (*ethnic awareness*) implies the realisation that the social environment is structured by social categories like race or gender. In multi-ethnic societies stage two is reached with approximately three years. In this stage, children also realise which category they belong to (*ethnic self-identification*) and learn to label and identify outgroup members. In stage three (*ethnic preference*), ethnic self-identification activates preferring and favouring the ingroup. Children are concerned with the ingroup and want it to be positively distinct to other groups. Ingroup norms become important. There is no derogation or dislike of outgroup members. The ingroup preference does not preclude intergroup friendship. Children in high status groups in multi-ethnic communities typically reach stage three by four to five years. Stage four (*ethnic prejudice*) typically does not occur before the age of seven years and some never reach it at all. In this stage prejudice in the sense of dislike or even hatred toward outgroup members replaces mere ingroup bias. There is an equal focus on ingroup and outgroup or even an obsessive outgroup focus. Prejudiced individuals tend to derogate outgroups and discriminate against outgroup members. Individuals are more likely to enter stage four in the case of competition, tension, and conflict between ethnic groups and less likely if they have acquired social cognitive abilities like perspective taking. If prejudice is normative, i.e. widely shared and unequivocally expressed in a given society (*social consensus*), individuals are also more likely to become prejudiced.

Empirical results support the relevance of social identification processes assumed by SIDT: In a study by Bennett, Lyons, Sani, and Barrett (1998), a strong identification with the category British was significantly correlated to the number of negative traits ascribed to Germans ($r = .11$, $p < .05$) in Scottish and English 6- to 15-year-olds. A higher self-reported

importance of being English or Scottish went along with more negative traits ascribed to Germans ($r = .16$, $p < .01$), French ($r = .14$, $p < .01$), Italians ($r = .14$, $p < .01$), and Spanish ($r = .13$, $p < .01$) but also with more positive trait ascriptions to Italians ($r = .16$, $p < .001$) and French ($r = .12$, $p < .05$). The significant positive correlation between identification with the ethnic ingroup and positive evaluations of the ethnic ingroup supports the assumption of SIDT that ingroup identification is linked to ingroup bias (Verkuyten, 2002, 10 to 12 years, the Netherlands, trait ascriptions; Verkuyten & Thijs, 2001: 10 to 13 years, the Netherlands, feelings).

A strong identification with the ingroup seems to foster ingroup favouritism and maybe even outgroup derogation. Therefore students' self-reported importance of the ethnic ingroup will be studied as a potential factor leading to prejudice.

Social norms

Social normative influence was already introduced as a possible factor influencing intergroup attitudes in children. Children are increasingly responsive to social influence and direct experiences with outgroup members according to SCDT (Aboud, 1988). SIDT includes the assumption that the normative climate regarding prejudice will affect children's intergroup attitudes (Nesdale, 1999a; Nesdale, Maas, Durkin, & Griffith, 2005). Cialdini and Goldstein (2004) underlined the importance of social norms as a means for individuals to orient in situations of uncertainty. They assumed that tolerance toward prejudiced behaviour is much more likely if a majority of the own group is expected to approve of the behaviour. Cialdini and Goldstein distinguished social norms including information about things typically approved or disapproved for by the ingroup (*injunctive norms*) from norms including information about things typically done by members of their social category (*descriptive norms*).

Studies assessing effects of social norms in children typically used injunctive norms which contain explicit information if the ingroup allows prejudice or not: British 6- to 16-year-olds showed less biased trait ascriptions when they expected stronger condemnation for social exclusion based on nationality (Rutland, Brown, Cameron, Ahmavaara, Arnold, & Samson, 2007). Anglo-Australian 7- and 9-year-olds who were told that their team-members in a fictive drawing competition were competitive and favoured exclusion (intolerant norm) indicated dislike for the other team whereas those who were informed that their team-mates favoured cooperation and inclusion (tolerant norm) indicated no dislike (Nesdale, Maas, Durkin, & Griffith, 2005).

Descriptive norms, which are more implicit compared to injunctive norms, were assessed in the present study to test if perceived typical ingroup behaviours toward outgroup members affect intergroup attitudes. Based on the theories reported above, it is assumed that the individual students in the class should be more likely to discriminate (e.g. by evaluating immigrants more negatively in the questionnaire) if they perceive a descriptive norm in the classroom that discrimination against immigrants is something ingroup members typically do.

Intergroup contact

Aboud (1988) emphasised that direct contact experience can have a positive effect on intergroup attitudes. Bar-Tal and Teichman (2005) also assumed positive effects of intergroup contact – unless it takes place in situations of (severe and prolonged) intergroup conflict. The *Contact Hypothesis* (Allport, 1954; Brown & Hewstone, 2005; Pettigrew, 1998) specifies optimal situational conditions under which intergroup contact should lead to reduced prejudice: members of both groups have the same status (at least in the contact situation), the contact is cooperative and interdependent, there is a shared common goal,

authorities support intergroup contact, and the situation facilitates the emergence of intergroup friendships. A description of possible mechanisms and processes through which contact leads to improved intergroup attitudes was provided by Pettigrew (1998) as well as Pettigrew and Tropp (2006).

The most impressive empirical support for the link between contact and prejudice is the meta-analysis with 515 studies by Pettigrew and Tropp (2006). The mean effect size was r = -.21. The correlation between contact and prejudice was negative in 94% of the samples. According to the meta-analysis contact is comparably effective in children (-.24), adolescents (-.21), college students (-.23), and adults (-.20). There are only a few longitudinal studies. A cross-lagged analysis by Stephan and Rosenfield (1978) found that a higher amount of interethnic contact in grades 5 and 6 was significantly correlated with more positive interethnic attitudes in grades 7 and 8 (r = .25). In contrast, interethnic attitudes in grades 5 and 6 were not significantly correlated with the amount of interethnic contact in grades 7 and 8 (r = .06). Levin, van Laar, and Sidanius (2003) found a bi-directional relationship between contact and prejudice in a longitudinal study, but their respondents were college students and not children.

Empathic perspective taking as potential mediator

Pettigrew and Tropp (2006) assumed that perspective taking might be an important mediator for the effect of intergroup contact on prejudice. Perspective taking increases sympathy and decreases prejudice (Galinsky, Ku, & Wang, 2005). Nesdale, Griffith, Durkin, and Maas (2005) assumed that empathic children might be less threatened by superficial differences and might like members of ethnic minority groups better. Nesdale et al. also provided first empirical support for their assumption: Respondents' scores in an empathy questionnaire were a significant predictor of liking toward the other team in a

minimal group study with Anglo-Australian 5- to 12-year-olds. Contact might lead to taking the respective outgroup's perspective or to feelings of empathy for this group (see also Pettigrew, 1998). This in turn should reduce prejudice. Contact might also induce general empathic perspective taking which might be a prerequisite of group-specific empathic perspective taking. Therefore the potential mediating role of general empathic perspective taking for effects of intergroup contact on attitudes will be tested. General empathic perspective taking predicted prejudice in a cross-sectional analysis (Farhan & Wagner, under review).

A strong identification with a relevant social ingroup implies a strong focus on the ingroup's social status and well-being according to SIDT and SIT. A high importance of the ingroup might lead to an exclusive focus on the ingroup. In such cases, empathic perspective taking with the outgroup might be reduced as the outgroup is not the focus of attention. An exclusive focus on the ingroup might also reduce general perspective taking unless the target of perspective taking is explicitly introduced as ingroup member.

A descriptive norm describing prejudiced behaviour toward an outgroup might reduce empathic perspective taking with this outgroup because it signals that the ingroup typically does not care about the outgroup's well-being.

Perceived intergroup similarity as potential mediator

According to SCDT, intergroup similarity is a mediator for the effect of the general cognitive developmental level on the prejudice level in children. Aboud (1988) hypothesised that developing cognitive abilities and cognitive constraints affect prejudice through their application in the social domain. Children who have acquired more flexible ethnic cognitions are less likely to be prejudiced. Flexibility of ethnic cognitions implies the understanding that different ethnic groups are similar to each other in many respects

(*intergroup similarity*) and that members of the same group show many inter-individual differences (*intragroup heterogeneity*). If the acquisition of flexible ethnic cognitions has an effect on the prejudice level, inter-individual differences in perceived intergroup similarity are likely to have an impact on intergroup attitudes as well.

Contact – especially intergroup friendship – might lead to higher perceived intergroup similarity. Friends compared to non-friends are characterised by a significantly higher amount of social contact, talking, cooperation, positive affect, and similarity according to a meta-analysis of 82 articles comparing friends with non-friends (Newcomb & Bagwell, 1995). A common relationship property of friendships is similarity in behaviour, demographics, interests, values, and personality. Experienced similarity with an outgroup friend might generalise to greater perceived similarity between in- and outgroup. The hypothesis is that intergroup friendships lead to perceived intergroup similarity which in turn leads to more positive intergroup attitudes.

A strong ingroup identification might reduce perceived intergroup similarity because it leads to striving for positive distinctiveness. Intergroup similarity might threaten positive distinctiveness if ingroup and outgroup are too similar. A strong ingroup identification might also imply that the own group differs from relevant outgroups.

A descriptive norm of prejudiced behaviour toward the outgroup might reduce perceived intergroup similarity as this kind of norm is likely to signal that the maltreated group is less worthy than the ingroup. If discrimination against the outgroup is permitted, high perceived intergroup similarity might induce cognitive dissonance. This might cause group members to perceive less intergroup similarity.

HYPOTHESES

This study is one of the first studies comparing the impact of different potential causal factors on prejudice in school-aged children in a longitudinal design and testing potential mediating variables. Based on the theoretical approaches and empirical data summarised above, four hypotheses were formulated:

H1: A higher identification with the ethnic ingroup leads to more negative attitudes toward ethnic outgroups.

H2: A social norm which describes negative behaviour toward an ethnic outgroup as typical for the ingroup leads to more negative attitudes toward ethnic outgroups.

H3: Intergroup contact (especially intergroup friendship) leads to more positive intergroup attitudes, i.e. there is a negative causal relationship between contact and prejudice.

H4: The effects assumed in hypotheses H1 to H3 are partially mediated by general empathic perspective taking and perceived intergroup similarity.

To be more precise, intergroup contact is hypothesised to lead to an increase in empathic perspective taking and perceived intergroup similarity and these are assumed to reduce prejudice. Stronger identification with the ingroup as well as a descriptive norm of prejudiced behaviour are assumed to reduce empathic perspective taking and perceived intergroup similarity and (should) thereby increase prejudice.

METHOD

General procedure

Data collection took place at six German schools with classes from grades one to six. The first data collection was scheduled from May 11th to July 4th 2005 in grades 3 and 5. The second data collection took place between May 15th and June 13th 2006 in the same

classes (grades 4 and 6). Only children who had parental permission to participate were allowed to fill in the questionnaire. Data collection took 25 to 45 minutes.[1]

Respondents

Data were available for 531 students at data collection 1 and for 537 respondents in data collection 2[2]. Data for 375 students with diverse ethnic backgrounds could be matched for both data collections based on the code. As the analyses computed in this article focus on attitudes of majority members regarding ethnic minorities, only the data of the children without immigration background were used. All 142 students in this sub-sample indicated that they as well as their parents and grandparents were born in Germany. In addition, they reported that German was the only language spoken in their family. There were 127 respondents without immigration background who skipped less than 5% of the items in the complete questionnaire (male: n = 71, female n = 56; grade 3 / 4: n = 68, grade 5 / 6: n = 59). The data of these 127 respondents were used for the analyses. At data collection

[1] The general instructions were read to the children and terms like "anonymous" and "attitude" were explained. After the distribution of the questionnaire the children first filled in their personal code. In data collection 1, instructions, items and the response options were read out to the students in order to preclude that limited reading abilities affected the responses. Only in those classes where a number of children had troubles with reading and writing according to the teacher's evaluation, instructions, questions, and response options were read to the students in data collection 2 as well. In the remaining classes, the children worked through the questionnaire on their own in order to prevent that slower classmates caused the other children to lose interest and motivation by making them wait for them. Students were encouraged to ask clarification questions which was frequently done.

[2] The unusual fact that there were more participants in data collection 2 compared to data collection 1 had several reasons: During data collection 1 a number of students were not present due to illness, another course, or the participation in a conflict moderation training which was held at the same time. There were no parallel courses or trainings during data collection 2 and almost no students missing due to illness.

1, most of the students were 9 years old (grade 3; N = 48) or 11 years old (grade 5; N = 38). The age range was from 8 to 13 years.

Measures

Predictors

The measure for the predictor variable identification consisted of two parts: First, participants were asked to note their ethnic self-identification ("There are German, Turkish, Italian, Polish children and children from other countries living in Germany. What are you?"). With reference to this self-ascribed ethnic group membership they were then asked with one item how important their group membership was to them. The response options were 1 (*not important at all*), 2 (*not so important*), 3 (*important*), and 4 (*very important*). Descriptive results for all variables are listed in table 1.

Descriptive norm regarding the typical behaviour toward Turkish immigrants was assessed with four items. With the introductions "Think about your class" and "Think about your friends" respondents were respectively asked to rate the frequency of jokes ("Turkish people are joked about") and insults ("Turkish children are insulted") with Turkish immigrants as targets. The response options were 1 (*very seldom or never*), 2 (*every month*), 3 (*every week*), and 4 (*every day*). The scale had a good internal consistency at both data collection times (see table 1).

Friendship lists were used to assess intergroup contact. The students were asked to list their best friends by family origin, creating one list for German origin, one for Turkish origin, and one for those from other countries. They were told to cross out those blanks in the questionnaire which were provided for an origin not being represented by any of their friends. Respondents were allowed to list classmates, schoolmates, neighbours, friends from clubs, etc. This indicator for contact is more objective than ratings of the amount or

frequency of contact. Contact with Turkish immigrants was represented by the number of Turkish friends listed by the respondents. Contact with immigrants in general was measured by counting the friends from all sorts of countries (sum of Turkish and other immigrant friends). Respondents listed zero ($N = 57$) to eight Turkish origin friends at time 1 and zero ($N = 59$) to six Turkish friends at time 2. As only very few students listed more than four Turkish origin friends (three at time 1 and six at time 2), these numbers were combined under the label 4 (*four friends and more*). This was meant to avoid that the few high numbers had too much impact on the regression analyses leading to biased estimates. At time 1, zero ($N = 34$) to nine friends with any immigration background other than Turkish were listed. At data collection 2, zero ($N = 27$) to 11 immigrant friends were listed. Higher numbers than six were rare (two cases at time 1 and five cases at time 2). Therefore these scores were combined under the label 6 (*six friends or more*). The two friendship lists were correlated to $r = .29$ ($p < .01$, $N = 121$) at data collection 1 and to $r = .39$ ($p < .001$, $N = 127$) at data collection 2.

Mediating variables

Empathic perspective taking was assessed with eight items. Two fictive situations were presented in which a classmate of the same gender was maltreated by other peers ("Imagine that you observe how others insult or make fun of a classmate"; "Imagine that you observe how a classmate is excluded from a game."). Respondents rated how likely they would show each of four empathic reactions in the two given situations ("I feel sympathy for the classmate", "The others' behavior makes me angry", "I think the others' behavior is nasty", and "I think the others' behavior is unjust"). Response options were 1 (*definitely not*), 2 (*rather not*), 3 (*probably*), and 4 (*for sure*). These items were only assessed at data collection 2 and constituted a scale with a good internal consistency (see table 1).

Four items assessed perceived intergroup similarity between German and Turkish origin children. They are modifications of Levy and Dweck's (1999) task regarding the differentiation within and between groups. Respondents were asked to judge the similarity between children whose grandparents had come from Turkey to Germany and those children whose family had always lived in Germany. To illustrate the intergroup context and as an anchor for the terms "Turkish" and "German", names which were typical for German and Turkish children, respectively, were included in the instruction and in the items. The items for girls asked: "Do you think that the 'Turkish' (i.e. Sibel, Ebru, Meryam, Leyla, and Sinem) and the 'German' children (i.e. Sarah, Michelle, Lena, Julia, and Laura) like the same games? / like the same films? / have the same sorrows? / dream of the same things?" The items for boys used the male names Metin, Demir, Murat, Timur, Mehmet, Lukas, Niklas, Marcel, Jan, and Alexander. The four items showed a satisfying internal consistency at times 1 and 2 (see table 1).

Dependent Measure

There were two dependent measures assessing students' intergroup attitudes: Dislike of Turkish immigrants, the largest immigrant group in Germany, was measured with a single item. Respondents read the statement "I like the Turkish people who live in Germany" and were asked to tick the response option 1 (*very much*), 2 (*much*), 3 (*not so much*), or 4 (*not at all*). The response options were illustrated with sad to happy faces. Dislike of immigrants in general was assessed with two items: "I like people who come to Germany from another country" and "I like people who speak another language than I do". The two items referring to immigrants in general showed a satisfying internal consistency at both data collections (see table 2). In addition, dislike of Germans was assessed with one

item ("I like Germans") in order to compare evaluations of the ingroup with evaluations of other groups.

Analyses

As dependent observations can lead to spuriously significant results in standard statistical tests (Hox, 2002) and data were collected in class, preliminary analyses testing if there is a high similarity of responses within school classes were performed in a first step. This was followed by a descriptive analysis of the intergroup attitudes. As a first hint to causal relations, the correlations between dislike at time 2 with the assumed causal factors of influence assessed at time 1 were computed. Next, cross-lagged analyses for prejudice toward Turkish immigrants and immigrants in general were performed. As a last step, the mediator hypotheses were tested with correlations and structural equation analyses.

PRELIMINARY ANALYSES

As students were surveyed in class, it is possible that students from the same class in the same school are more similar to each other than students from different classrooms. The shared community background (norms, socio-economic status, ethnic composition, educational program) and experience (teachers, social and physical environment) might lead to a high intra-class correlation. As standard statistical tests are meant for use with independent observations, multilevel data with dependent observations can lead to estimates of standard errors that are much too small in conventional statistical tests, which in turn foster spuriously significant results (Hox, 2002).

Multilevel analyses were performed with the SPSS14 feature MIXED to assess if there was a significant amount of variance between the school classes as level-2 units of

analysis, i.e. if students in the same class were more similar to each other than students from different classes. If this was the case, statistical analyses might be biased. School classes (N = 27) were used as level-2 units because the respondents came from only six different schools. On the first level of the unconditional means model the individual scores in the respective variable were modelled as the mean score in the respective classroom plus the individual student's deviation from the classroom mean. On the second level the classroom means were modelled as grand mean in the respective variable across all students and classes plus the respective class' deviation from the grand mean.

Ingroup identification showed significant inter-individual differences (variability within classes: $r_{ij} = 0.71$, *Wald Z* = 7.26, $p < .001$) but no significant variability between classes (*variance of the intercept* = 0.00, *Wald Z* = 0.08, $p = .93$; *intra-class correlation* = 0). The variability within ($r_{ij} = 0.57$, *Wald Z* = 7.16, $p < .001$) but not between classes (*variance of the intercept* = 0.12, *Wald Z* = 1.64, $p = .10$; *intra-class correlation* = .17) was significant for descriptive norm. The number of listed Turkish origin friends differed significantly between individuals ($r_{ij} = 1.15$, *Wald Z* = 7.16, $p < .001$) and only marginally significant between classes (*variance of the intercept* = 0.30, *Wald Z* = 1.78, $p = .08$; *intra-class correlation* = .21). Statistical tests with the number of Turkish friends might be biased. The difference between classes is most likely due to the different numbers of Turkish origin classmates in the different classes. The sum score of all immigrant friends listed showed a significant amount of variability within classes ($r_{ij} = 5.07$, *Wald Z* = 7.29, $p < .001$) but not between classes (*variance of the intercept* = 0.40, *Wald Z* = 1.00, $p = .32$; *intra-class correlation* = .07).

Dislike of Turkish immigrants at time 2 varied significantly within classes ($r_{ij} = 0.53$, *Wald Z* = 7.10, $p < .001$) whereas the variability between classes was not significantly different from zero (*variance of the intercept* = 0.00, *Wald Z* = .14, $p = .89$; *intra-class*

correlation = 0). Dislike of immigrants in general at time 2 showed a significant variability within classes (r_{ij} = 0.35, *Wald Z* = 7.97, $p < .001$). The variability between classes could not be estimated (the Hesse matrix was not positive definite, i.e. could not find a minimum or maximum of the function) – most likely because the amount of inter-group variance was too small.

As there were only inter-individual differences in the dependent variables dislike of Turkish immigrants and dislike of immigrants in general and no significant variance between classes, analyses on the individual level should not be biased. Despite the fact that students were tested in class, cases can be treated as individual, independent observations.

RESULTS

A comparison of the dislike ratings for the ingroup Germans and the three outgroups showed that positive evaluations were given much more frequently for the ingroup than for the outgroups (see table 2). A Multivariate Analysis of Variance of the ratings of dislike for the ingroup and the three outgroups showed a significant difference at time 1 ($F_{(3,123)}$ = 81.16, $p < .001$, Eta^2 = 0.66, N = 126) and time 2 ($F_{(3,122)}$ = 72.33, $p < .001$, Eta^2 = 0.64, N = 125). The mean ratings of dislike were significantly lower for the ingroup than for Turkish immigrants (time 1: *mean difference* = -1.14, *SD* = 0.92, $T_{(df = 125)}$ = -13.79, $p < .001$; time 2: *mean difference* = -1.17, *SD* = 0.89, $T_{(df = 126)}$ = -14.78, $p < .001$). Ratings of dislike for the ingroup were also significantly lower compared to dislike of people immigrating (time 1: *mean difference* = -0.83, *SD* = 0.80, $T_{(df = 126)}$ = -11.68, $p < .001$; time 2: *mean difference* = -0.85, *SD* = 0.82, $T_{(df = 126)}$ = -11.73, $p < .001$) or of people speaking another language (time 1: *mean difference* = -1.00, *SD* = 0.90, $T_{(df = 126)}$ = -12.53, $p < .001$; time 2: *mean difference* = -0.95, *SD* = 0.92, $T_{(df = 124)}$ = -11.64, $p < .001$). This pattern of

responses indicates a clear ingroup bias with evaluations favouring the ingroup over other groups. The response option *do not like at all* can be used as an indicator for prejudice in the sense of openly negative feelings toward a group. This option was never chosen for ingroup evaluations. In contrast, 3 to 12% of the students chose this response to describe their attitude toward an ethnic outgroup (Turkish immigrants: 12% at time 1 and 9% at time 2; people immigrating: 3% at time 1 and time 2; foreign language speakers: 7% at time 1 and 6% at time 2).

The correlations are reported in table 3. Missing values were replaced by EM-estimates[3] using SPSS 14. Dislike of Turkish immigrants at time 1 and 2 were significantly correlated (r = .44). In line with hypothesis 1, the strength of ingroup identification at time 1 was significantly and positively correlated to dislike of Turkish immigrants at time 2 (r = .19). Contradicting hypothesis 2, descriptive norm at time 1 was not significantly related to dislike of Turkish immigrants at time 2. The significant negative correlation between number of Turkish friends at time 1 and dislike of Turkish immigrants at time 2 (r = -.32) fits hypothesis 3.

A very similar pattern of results was found for dislike of immigrants in general: There was a significant correlation between dislike of immigrants in general at time 1 and time 2 (r = .36). The importance of ethnic ingroup membership at time 1 (r = .25) and the number of friends with migration background at time 1 (r = -.24) were significantly related to dislike of immigrants at time 2. The relations were in the expected direction. Again, there was no significant correlation for descriptive norm reported at time 1.

A cross-lagged analysis was conducted for dislike of Turkish immigrants, ingroup identification, descriptive norm, and contact with the structural equation analyses

[3] There were only few missing values and the pattern of correlations was very similar for the data set with the replaced missing values and the pair-wise correlations.

program AMOS 7 using Maximum Likelihood estimation. The data set with missing values replaced by EM-estimates was used ($N = 127$). The model was based on the observed data and not modelled with latent factors because there was only a single indicator for dislike of Turkish immigrants as well as ingroup identification.

The default model (see figure 1) tests the causal paths assumed in hypothesis 1 to 3 and the reverse paths in order to find out if empirical results support the hypothesised relationships, causal effects of prejudice on the assumed predictors, or bi-directional relations. Descriptive norm was included even though it was not significantly correlated to prejudice because the model fit of the hypothesised model was to be tested. The default model contained correlations between dislike of Turkish immigrants, ingroup identification, descriptive norm and contact at time 1, the autoregressive paths, as well as cross-lagged paths from ingroup identification, descriptive norm, and contact at time 1 to dislike of Turkish immigrants at time 2 and from dislike of Turkish immigrants at time 1 to ingroup identification, descriptive norm, and contact at time 2. The fit indices for the fit between the data and the default model were acceptable (see table 4)[4]. A model that contained only the autoregressive paths (model 2) had a worse data fit compared to the default model (see table 5: significant χ^2 difference test[5]) and unsatisfactory fit indices overall (see table 4). The two alternative models containing only the hypothesised paths from identification, descriptive

[4] A good fit can be assumed if χ^2/df is smaller than 2 (Tabachnik & Fidell, 2001, p. 698). According to Byrne (2001), the fit measure *CFI* (comparative fit index) which compares the tested model with the independence model (with all correlations restrained to zero) should be larger than .90; the *RMSEA* (root mean square error of approximation) indicates a good fit if smaller than .05 and a mediocre fit if it is between .08 and .10. The *RMSEA* tends to over-reject true population models in cases of small sample size.

[5] If the χ^2 difference test is significant, the model with more constraints has a worse fit than the model without or with fewer constraints. A non-significant difference $\Delta\chi^2$ means that the model with more constraints is better despite the larger χ^2 because it is more parsimonious.

norm, and contact assessed at time 1 to dislike at time 2 (model 3) or only the paths from dislike at time 1 to identification, descriptive norm, and contact assessed at time 2 (model 4) were superior to model 2 (see table 5). But they were inferior to the default model which contained fewer restrictions (see table 5). The default model was then compared to six additional models (models 5 to 10) in which the cross-lagged paths were restrained to zero one at a time (see tables 4 and 5). The χ^2 difference test was not significant for the comparison between model 6, which restrained the path from descriptive norm at time 1 to dislike at time 2 to zero, and the default model without any restrictions (see table 5). Model 6 had the best data fit compared to the alternative models and had an acceptable overall data fit (see table 4). Figure 2 shows the correlations at time 1 and the path coefficients for the autoregressive and cross-lagged paths for model 6. The autoregressive paths, which indicate the degree of stability of the inter-individual differences, were of medium size but significant for all variables. In line with hypothesis 1, the path from ingroup identification at time 1 to dislike at time 2 was significant and positive ($\beta = .15$). The path from contact at time 1 to dislike at time 2 was significant and negative ($\beta = -.18$) which supports hypothesis 3. In addition, model 6 contains marginally significant paths from dislike of Turkish immigrants at time 1 to ingroup identification ($\beta = .15$) and contact ($\beta = -.16$) at time 2. There is also a significant path from dislike of Turkish immigrants at time 1 to descriptive norm at time 2 ($\beta = .16$). (Marginally) significant correlations between the variables assessed at time 1 were only found for dislike and contact ($r = -.33$) and dislike and descriptive norm ($r = .16$).

The best fitting cross-lagged model for dislike of Turkish immigrants, model 6, was also computed for dislike of immigrants in general. This analysis was meant to test if contact with specific outgroups (e.g. friends with a Turkish, Italian, or Ukrainian immigrant background) and a descriptive norm referring to the specific group Turkish immigrants generalise to prejudice toward the global category immigrants. All concepts except for

ingroup identification were assessed with more than one indicator item. As structural equation models with latent factors have the advantage that reliability is taken into account in estimations of relations between constructs, this analysis was modelled with latent factors for all concepts except for ingroup identification. Sample size again was 127. The fit between the data and model 6 was not satisfying ($\chi^2 = 201.19$, $df = 114$; $\chi^2 / df = 1.77$; $CFI = .87$; $RMSEA = .08$). Therefore a modified version of model 6 (model 6a) was computed without the paths from dislike of immigrants in general at time 1 to descriptive norm and contact assessed at time 2 which were not significant in model 6. Model 6a had a better data fit compared with model 6 ($\Delta\chi^2 = 2.72$, $df = 2$, $p = .26$) but it also had a *CFI* score below .90 ($\chi^2 = 208.56$, $df = 121$; $\chi^2 / df = 1.72$; $CFI = .86$; $RMSEA = .08$). None of the correlations or paths for descriptive norm was significant. This suggests that 9- to 13-year-old children do not generalise from a group-specific descriptive norm to prejudice toward the global category immigrants. A model without descriptive norm (see figure 3) had a good data fit ($\chi^2 = 16.67$, $df = 26$; $\chi^2 / df = 0.64$; $CFI = 1.00$; $RMSEA = .00$). All autoregressive paths were significant and all paths between the latent variables and the indicator items were significant or marginally significant. In line with hypotheses 1 and 3 the path from ingroup identification at time 1 to dislike at time 2 was positive ($\beta = .20$) and the path from contact at time 1 to dislike at time 2 was negative ($\beta = -.28$) but both were only marginally significant. The path from dislike at time 1 to ingroup identification at time 2 ($\beta = .22$) was significant. None of the correlations at time 1 was significant. From the autocorrelations only the correlations between number of Turkish friends assessed at time 1 and 2 ($r = .38$) and between dislike of people immigrating assessed at time 1 and 2 ($r = .24$) were (marginally) significant.

The assumed mediating variables, empathic perspective taking and perceived intergroup similarity, should be correlated with the dependent variables as well as with

ingroup identification, descriptive norm and contact. Empathic perspective taking and perceived intergroup similarity (both assessed at time 2) were significantly and negatively correlated with dislike of Turkish immigrants and immigrants in general assessed at time 2 (see table 4). Contrary to the expectations, empathic perspective taking at time 2 was not significantly correlated with any of the variables assessed at time 1 (see table 4). Perceived similarity at time 2 was significantly correlated with ingroup identification at time 1 and there was a marginally significant correlation with dislike of Turkish immigrants at time 1 (see table 4). The remaining correlations between perceived intergroup similarity at time 2 and the time-1 measures were not significant (see table 4).

In order to test the data fit of a model containing all mediating variables assumed in hypothesis 4, structural equation models were computed with all paths assumed despite the non-significant correlations. The default model was a partial mediation model for dislike of Turkish immigrants (see figure 4). The fit measures of the default model were not satisfying (see table 6). The default model was compared with a complete mediation model which restrained the direct paths from ingroup identification, descriptive norm, and contact (all assessed at time 1) to dislike of Turkish immigrants at time 2 to zero. The fit of the complete mediation model was worse than the fit of the default model (see table 6). Alternative mediation model 3 restrained all paths from identification, norm, and contact (time 1) to the assumed mediators at time 2 to zero and allowed only the direct paths from these five variables to dislike of Turkish immigrants at time 2. Mediation model 3 also had a worse data fit than the default model (see table 6). As none of the three tested models showed a convincing data fit, a modified version of the best fitting model (the default model) was analysed. This model 4 contained the paths from dislike of Turkish immigrants, ingroup identification, and contact at time 1 to perceived intergroup similarity and dislike of Turkish immigrants at time 2, the paths from the two hypothesised mediators (time 2) to dislike of

Turkish immigrants time 2, and the correlations of the time 1 measures (see figure 5). The fit between model 4 and the data was good ($\chi^2 = 7.97$, $df = 7$; $\chi^2 / df = 1.14$; *CFI* = .99; *RMSEA* = .04). The results for model 4 are shown in figure 5. In line with hypothesis 4, there were significant negative paths from ingroup identification at time 1 to perceived intergroup similarity at time 2 (β = -.32) and from perceived intergroup similarity at time 2 to dislike of Turkish immigrants at time 2 (β = -.21). Contrary to expectations, the path from contact at time 1 to perceived intergroup similarity at time 2 was marginally significant but negative (β = -.16). The direct path from contact at time 1 to dislike at time 2 was negative and significant (β = -.22). The path from ingroup identification at time 1 to dislike at time 2 was not significant with the assumed mediating variables included in the model (β = .06). As expected, there was a significant negative path from empathic perspective taking assessed at time 2 to dislike at time 2 (β = -.25). In addition, there were significant paths from dislike of Turkish immigrants at time 1 to dislike at time 2 (β = .35) and to perceived intergroup similarity at time 2 (β = -.20). With regard to the correlations at time 1, only the correlations between dislike and contact ($r = -.33$) and dislike and norm ($r = .16$) were significant and marginally significant respectively.

A modified version of mediator model 4 without the group-specific descriptive norm was also tested with dislike of immigrants in general as a dependent variable. All variables with the exception of ingroup identification were modelled as latent factors. The fit between the data and model 4a was acceptable ($\chi^2 = 205.72$, $df = 142$; $\chi^2 / df = 1.45$; *CFI* = .92; *RMSEA* = .06). The path from ingroup identification at time 1 to perceived intergroup similarity at time 2 ($b = -.12$, β = -.39, $p < .01$) and the path from perceived intergroup similarity at time 2 to dislike of immigrants in general at time 2 ($b = -.61$, β = -.39, $p < .05$) were significant and negative. This supports hypothesis 4. Contrary to hypothesis 4, there

was no significant path from contact at time 1 to perceived intergroup similarity at time 2 (b = -.02, β = -.03, p = .86). As expected, there was a significant negative path from empathic perspective taking at time 2 to dislike of immigrants in general at time 2 (b = -.36, β = -.32, p < .01). The direct path from contact at time 1 to dislike at time 2 was marginally significant and negative (b = -.33, β = -.38, p < .10). In contrast, the path from ingroup identification at time 1 to dislike at time 2 was not significant with the assumed mediating variables included (b = .00, β = .00, p = .97). Dislike of immigrants at time 1 had a significant autoregressive path (b = 0.49, β = .49, p < .01) but no significant path to perceived intergroup similarity at time 2 (b = 0.03, β = .05, p = .70). None of the correlations at time 1 was significant (dislike / identification: r = .09, p = .43; dislike / contact: r = -.17, p = .32; identification / contact: r = -.23, p = .13). As in the cross-lagged model, the latent variables dislike of immigrants in general and contact had two indicator items, perceived intergroup similarity had four, and empathic perspective taking had eight. All paths from the latent factors to the indicator variables were significant (b = 1.20 to 2.48; β = .43 to .83, p < .05 for other immigrant friends and contact, p < .001 for the remaining paths).

DISCUSSION

Analyses with a two-wave panel with 9- to 13-year-old children blend in well with the hypothesis that a higher identification with the ethnic ingroup leads to more negative attitudes toward ethnic outgroups (H1). Ingroup identification, i.e. the self-rated importance of the membership in the ethnic ingroup, assessed at data collection 1, was significantly and positively correlated with dislike of Turkish immigrants and immigrants in general assessed at data collection 2. Cross-lagged analyses provided an even stronger hint to a causal relation between ingroup identification and intergroup attitudes: The path from

ingroup identification (time 1) to dislike of Turkish immigrants (time 2) was significant even though descriptive norm and intergroup contact, the autoregressive paths, and the time 1 inter-correlations were included in the model as well. With regard to dislike of immigrants in general, the path from identification to intergroup attitudes was positive and marginally significant. These results foster the assumption that individuals who identify strongly with their ethnic ingroup are more likely to show ingroup bias or even outgroup derogation than those with a weaker ingroup identification.

Neither the correlation analyses nor the cross-lagged models supported the hypothesis that a discriminatory descriptive norm leads to more negative attitudes (H2). The correlations between descriptive norm (time 1) and dislike of Turkish immigrants and immigrants in general (time 2) as well as the cross-lagged paths from descriptive norm (time 1) to outgroup attitudes (time 2) were not significant. Descriptive norm was assessed by asking students about the frequency of negative peer behaviour toward Turkish immigrants. A reason for these results could be that a more explicit assessment of ingroup norms regarding prejudice and prejudiced behaviour might have been necessary. Children might not (yet) abstract an ingroup norm from perceived intergroup behaviour. In addition, most students reported that negative peer behaviour toward Turkish immigrants was very rare. Moreover, children are confronted with different sources of information about ingroup norms: Teachers typically try to foster tolerant norms and prevent insults and racist jokes in their classroom. While some peers might show prejudiced behaviours, others might support harmonious interactions in class. Intergroup attitudes and behaviours shown or signalled by the children's parents probably affect normative climate as well. A study which compares the impact of these sources on children's perceptions of what is normative might be highly informative.

The results support the hypothesis that intergroup contact leads to more positive intergroup attitudes (H3). There was a significant negative correlation between contact at time 1 and dislike of Turkish immigrants as well as immigrants in general at time 2. The cross-lagged path from number of Turkish friends listed to dislike of Turkish immigrants was negative and significant. With regard to dislike of immigrants in general this path was negative and marginally significant. Intergroup friendships are likely to provide equal status contact, common goals, affective ties and close, cooperative interactions and have been described as a very promising form of contact by Pettigrew (1998). An advantage of the chosen measure is that it is relatively objective. Asking participants to lists the names of their outgroup friends is more concrete and less vulnerable to biases than the often used subjective ratings of intergroup contact frequency or similar measures.

The structural equation analyses only provide empirical support for one of the assumed mediator relations (H4): Ingroup identification was significantly related to perceived intergroup similarity in the correlations and mediation models. When perceived intergroup similarity was included in the structural equation model, the path from identification to dislike of Turkish immigrants was not significant. The same was found for dislike of immigrants in general. This partly supports the mediator role of perceived intergroup similarity assumed in hypothesis 4. But the marginally significant negative path from contact to perceived intergroup similarity in the model for dislike of Turkish immigrants contradicts hypothesis 4. Intergroup friendships seem to inform children about intergroup differences. Dissimilarity between in- and outgroup might only lead to negative attitudes if this dissimilarity is seen as something negative. The finding that intergroup contact decreases perceived intergroup similarity and dislike of the outgroup at the same time might be due to a more positive evaluation of intergroup dissimilarity based on intergroup contact. Results from a representative sample of German adults indicated that

contact has a positive effect on intergroup attitudes because it leads to positive evaluations of intergroup dissimilarity as being enriching (Wolf & van Dick, 2008). None of the other relations assumed in hypothesis 4 were found in the correlation analyses or cross-lagged models. This indicates that further studies should focus on outgroup-related forms of empathic perspective taking as potential mediators. Intergroup emotions might be more promising mediating variables than perceived intergroup similarity – especially for contact (Pettigrew & Tropp, 2006).

The reported analyses delivered a number of additional results which are not related to the hypotheses but deserve closer inspection: The cross-lagged analyses suggest a bi-directional relationship between dislike and ingroup identification (both cross-lagged paths were positive and at least marginally significant). A strong ingroup identification fosters ingroup bias or even outgroup derogation in order to improve ingroup status and positive social identity. At the same time negative attitudes toward the outgroup increase the importance of ingroup membership and ingroup-outgroup distinctions. This is in line with SIT and SIDT.

A less positive intergroup attitude toward Turkish immigrants seems to lead to perceptions of a prejudiced ingroup norm (significant positive path from dislike time 1 to descriptive norm time 2). This might be due to a false consensus effect (see also Aboud & Doyle, 1996): if a child dislikes a certain outgroup, he or she assumes that other members of the own group dislike this group as well and approve of negative behaviours toward this group. In addition, children with a more negative attitude toward Turkish immigrants might be more likely to have friends and spend time with classmates who maltreat Turkish peers as compared to children with a positive attitude. In the cross-lagged model for dislike of immigrants in general none of the two cross-lagged paths between dislike and descriptive norm was significant. This may in part be due to different levels of specification: while

descriptive norm referred to behaviours directed at Turkish immigrants (i.e. a specific group), attitudes were assessed on a higher level of abstraction (immigrants as a higher order category).

The (marginally) significant cross-lagged paths between number of Turkish friends listed and dislike of Turkish immigrants also indicate a bi-directional relationship. Contact with members of a specific outgroup seems to reduce negative attitudes toward this outgroup. More positive intergroup attitudes foster intergroup contact. This also replicates the bi-directional relationship between intergroup contact and intergroup attitudes found by Levin, van Laar, and Sidanius (2003). In the cross-lagged model for dislike of immigrants in general, the path from dislike to contact was not significant. Prejudice toward the global category immigrants does not seem to affect willingness for contact with members of specific outgroups.

There are some limitations to this study: The sample was comparably small for the use of structural equation modelling ($N = 127$). But as the sample size was more than five times the degrees of freedom of the models for dislike of Turkish immigrants, the X^2 statistic should not be overly rejecting (Hoogland & Boomsma, 1998). The sample size is only problematic for the models for dislike of immigrants in general which might lead to rejections of the model or biased estimates. In order to keep the questionnaire as simple and understandable as possible for the youngest respondents, some concepts (e.g. dislike of Turkish immigrants and ingroup identification) were assessed with only one item. Therefore the reliability is unknown and the cross-lagged model for dislike of Turkish immigrants could not be modelled with latent factors. As a result one of the main advantages of structural equation models could not be used: The cross-lagged paths are not controlled for the reliability of the measures. Nevertheless, the study is one of the rare longitudinal studies which offer significant advantages over cross-sectional data (Finkel, 1995).

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Table 1. Descriptive results and internal consistencies at time 1 (t1) and time 2 (t2).

		Mean (SD)	*Skewness (SD)*	*Kurtosis (SD)*	*Cronbach Alpha* (*)	*N*
Strength of	t1	3.29 (0.93)	1.05 (0.22)	-0.07 (0.43)		126
identification	t2	3.13 (0.85)	-0.58 (0.22)	-0.59 (0.43)		127
Descriptive	t1	1.62 (0.85)	1.30 (0.22)	0.76 (0.43)	.85 (.68 – .71)	120
norm	t2	1.67 (0.83)	1.12 (0.22)	0.40 (0.43)	.82 (.56 – .74)	124
Turkish friends	t1	0.93 (1.07)	0.92 (0.22)	0.08 (0.44)		122
	t2	1.06 (1.20)	0.81 (0.22)	-0.56 (0.43)		127
Other immi-	t1	1.53 (1.40)	0.91 (0.22)	0.63 (0.44)		121
grant friends	t2	1.97 (1.60)	0.69 (0.22)	-0.04 (0.43)		127
Sum immigrant	t1	2.45 (1.99)	1.10 (0.22)	1.53 (0.44)		121
friends	t2	3.02 (2.35)	0.76 (0.22)	0.24 (0.43)		127
Empathic per-	t1					
spective taking	t2	3.36 (0.56)	-0.76 (0.22)	0.02 (0.43)	.89 (.53 – .77)	125
Intergroup	t1	2.26 (0.59)	0.29 (0.25)	-0.07 (0.49)	.58 (.25 – .49)	95
similarity	t2	2.29 (0.63)	-0.19 (0.22)	-0.85 (0.43)	.72 (.40 – .59)	127
Dislike of Tur-	t1	2.50 (0.81)	0.23 (0.22)	0.45 (0.43)		126
kish immigrants	t2	2.54 (0.73)	0.12 (0.22)	0.28 (0.43)		127
Scale dislike of	t1	2.28 (0.64)	-0.04 (0.22)	0.04 (0.43)	.64 (r = .47)	127
immigrants	t2	2.28 (0.60)	0.22 (0.22)	-0.50 (0.43)	.63 (r = .47)	127

Note. * The *corrected item-total correlations* are indicated in brackets. Internal consistency would be lower if any of the items was to be deleted.

Table 2. Frequencies and mean scores for dislike of Germans, Turkish immigrants, people coming to Germany from another country, and people speaking another language at time 1 (t1) and time 2 (t2).

I like target group…		1 (*very much*)	2 (*much*)	3 (*not so much*)	4 (*not at all*)	*Mean* (*SD*)
Germans	t1	82 (65%)	44 (35%)	1 (1%)	0 (0%)	1.36 (0.50)
	t2	82 (65%)	43 (34%)	2 (2%)	0 (0%)	1.37 (0.52)
						N = 127
Turkish	t1	10 (8%)	58 (46%)	43 (34%)	15 (12%)	2.50 (0.81)
						N = 126
	t2	7 (6%)	56 (44%)	53 (42%)	11 (9%)	2.54 (0.73)
						N = 127
People coming to Germany	t1	16 (13%)	75 (59%)	32 (25%)	4 (3%)	2.19 (0.69)
	t2	10 (8%)	83 (65%)	30 (24%)	4 (3%)	2.22 (0.63)
						N = 127
People speaking another language	t1	18 (14%)	54 (43%)	46 (36%)	9 (7%)	2.36 (0.81)
						N = 127
	t2	15 (12%)	62 (49%)	41 (32%)	7 (6%)	2.32 (0.76)
						N = 125

Table 3. Correlations between dislike of Turkish immigrants (upper lines) and dislike of immigrants in general (below) at data collection 1 and 2, the predictor variables at data collection 1, and the assumed mediating variables at data collection 2 (N = 127).

	Dislike (t1)	Identifi-cation (t1)	Norm (t1)	Contact (t1)	Similari-ty (t2)	Empathic perspective taking (t2)
Dislike (t2)	.44***	.19*	-.02	-.32***	-.31***	-.24**
	.36***	.25**	.03	-.24**	-.31***	-.31***
Dislike (t1)		.04	.16^{t}	-.33***	-.16^{t}	-.10
		.07	.04	-.09	-.02	-.14
Identification			-.09	-.11	-.31***	-.11
(t1)			-.10	-.15^{t}	-.31***	-.11
Descriptive				-.02	-.01	-.05
norm (t1)				.05	-.01	-.05
Contact (t1)					-.06	-.07
					.02	-.12
Perceived						.15^{t}
similarity						.15^{t}
(t2)						

Note. Missing values were replaced by EM-estimates. The same pattern of correlations results for the pair-wise correlations when missing values are not replaced. *** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$ and ^{t} indicates $p < .10$.

Table 4. Comparison of model fit measures for the different cross-lagged models for dislike of Turkish immigrants.

Model	X^2	*df*	X^2/df	*CFI*	*RMSEA*
Default (all paths; see figure 1)	20.67	12	1.72	.92	.08
2 (no cross-lagged paths)	41.04	18	2.28	.80	.10
3 (only cross-lagged paths to dislike)	31.11	15	2.07	.86	.09
4 (only cross-lagged paths from dislike)	30.60	15	2.04	.86	,09
5 (path identification t1 to dislike t2 = 0)	24.16	13	1.86	.90	.08
6 (path norm t1 to dislike t2 = 0)	21.43	13	1.65	.93	.07
7 (path contact t1 to dislike t2 = 0)	25.18	13	1.94	.90	.09
8 (path dislike t1 to identification t2 = 0)	23.78	13	1.83	.91	.08
9 (path dislike t1 to norm t2 = 0)	24.48	13	1.88	.90	.08
10 (path dislike t1 to contact t2 = 0)	24.18	13	1.86	.90	.08

Note. $N = 127$, missing values replaced by EM-estimates.

Table 5. Nested-Model Comparisons for dislike of Turkish immigrants.

Model		Compared to default model	Compared to model 2	Compared to model 3	Compared to model 4
Default (all paths; see figure 1)	ΔX^2				
	p				
2 (no cross-lagged paths)	ΔX^2	20.38			
	p	.002			
3 (only cross-lagged paths to dislike)	ΔX^2	10.44	9.94		
	p	.02	.02		
4 (only cross-lagged paths from dislike)	ΔX^2	9.94	10.44		
	p	.02	.02		
5 (path identification t1 to dislike t2 = 0)	ΔX^2	3.49	16.88	6.44	
	p	.06	.005	.04	
6 (path norm t1 to dislike t2 = 0)	ΔX^2	0.76	19.62	9.18	
	p	.38	.001	.01	
7 (path contact t1 to dislike t2 = 0)	ΔX^2	4.51	15.86	4.42	
	p	.03	.007	.07	
8 (path dislike t1 to identification t2 = 0)	ΔX^2	3.11	17.27		7.33
	p	.08	.004		.03
9 (path dislike t1 to norm t2 = 0)	ΔX^2	3.81	16.56		6.63
	p	.05	.005		.04
10 (path dislike t1 to contact t2 = 0)	ΔX^2	3.52	16.86		6.92
	p	.06	.005		.03

Note. $N = 127$, missing values replaced by EM-estimates.

Table 6. Comparison of the model fit measures for the different mediation models for dislike of Turkish immigrants.

	χ^2	*df*	χ^2 / *df*	*CFI*	*RMSEA*	Compared to default model
Default model (partial mediation)	2.29	1	2.29	.99	.10	
Model 2 (full mediation)	13.43	4	3.36	.89	.14	$\Delta\chi^2 = 11.15$ $p < .05$
Model 3 (independent influence)	25.49	9	2.83	.80	.12	$\Delta\chi^2 = 23.20$ $p < .01$

Note. $N = 127$, missing values replaced by EM-estimates.

Figure 1. Cross-lagged model (default) for dislike of Turkish immigrants.

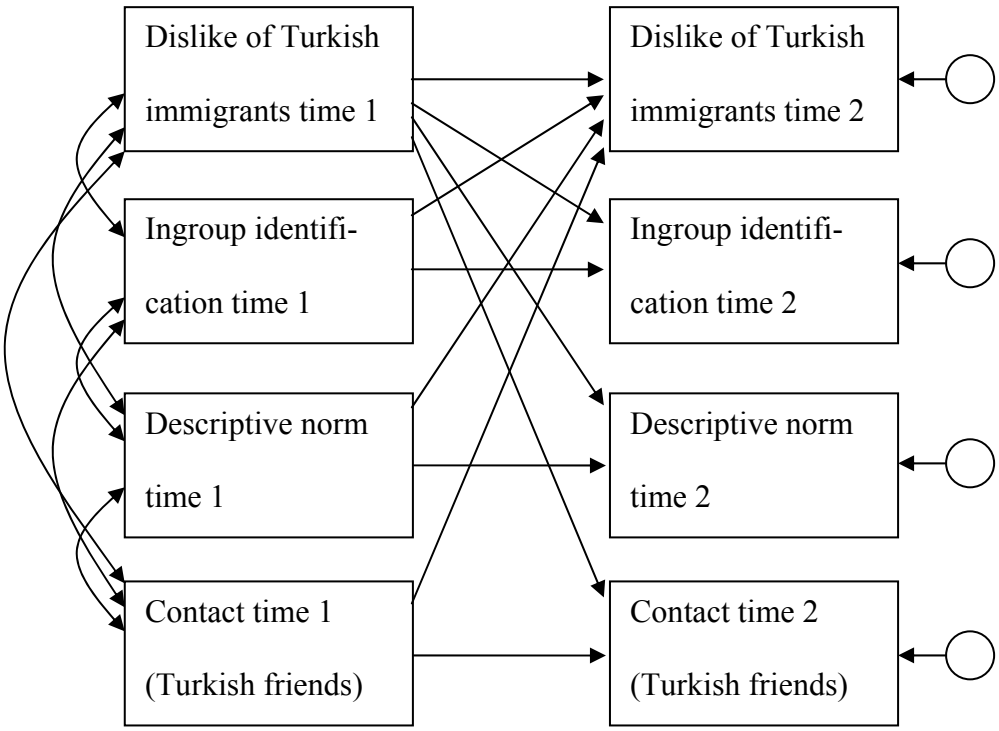
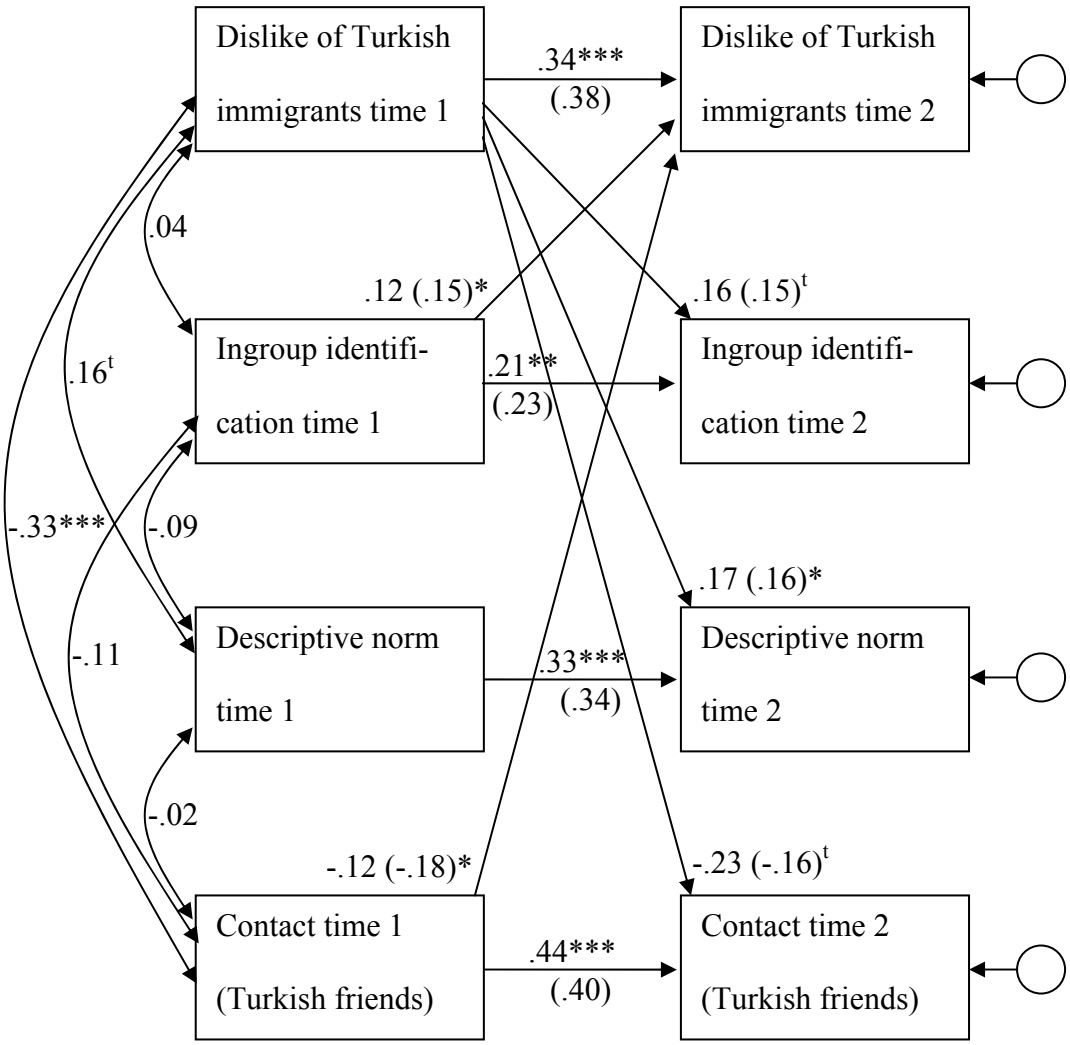
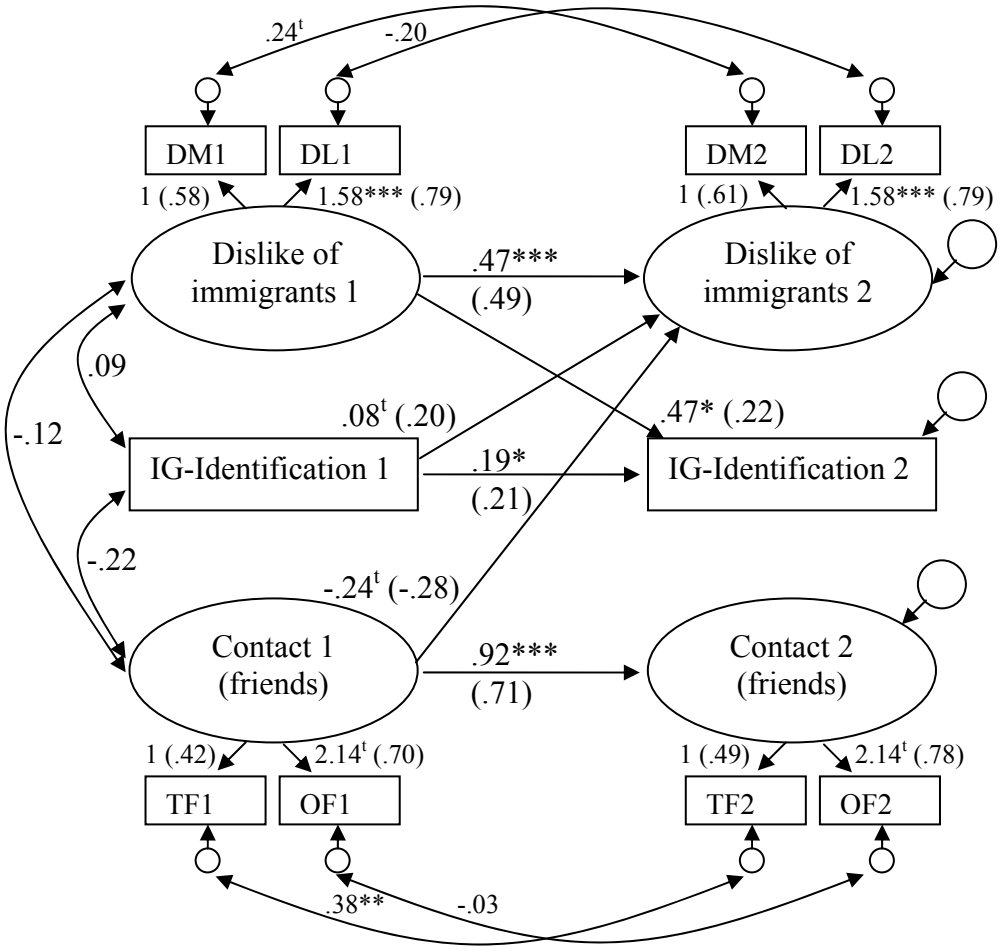


Figure 2. Best fitting cross-lagged model (model 6) for dislike of Turkish immigrants.



Note. Standardised path coefficients in brackets, $N = 127$, missing values replaced by EM-estimates.

Figure 3. Best fitting cross-lagged model (model 7) for dislike of immigrants in general.



Note. Standardised path coefficients in brackets, $N = 127$, missing values replaced by EM-estimates.

Figure 4. Mediation test model (default model) for dislike of Turkish immigrants.

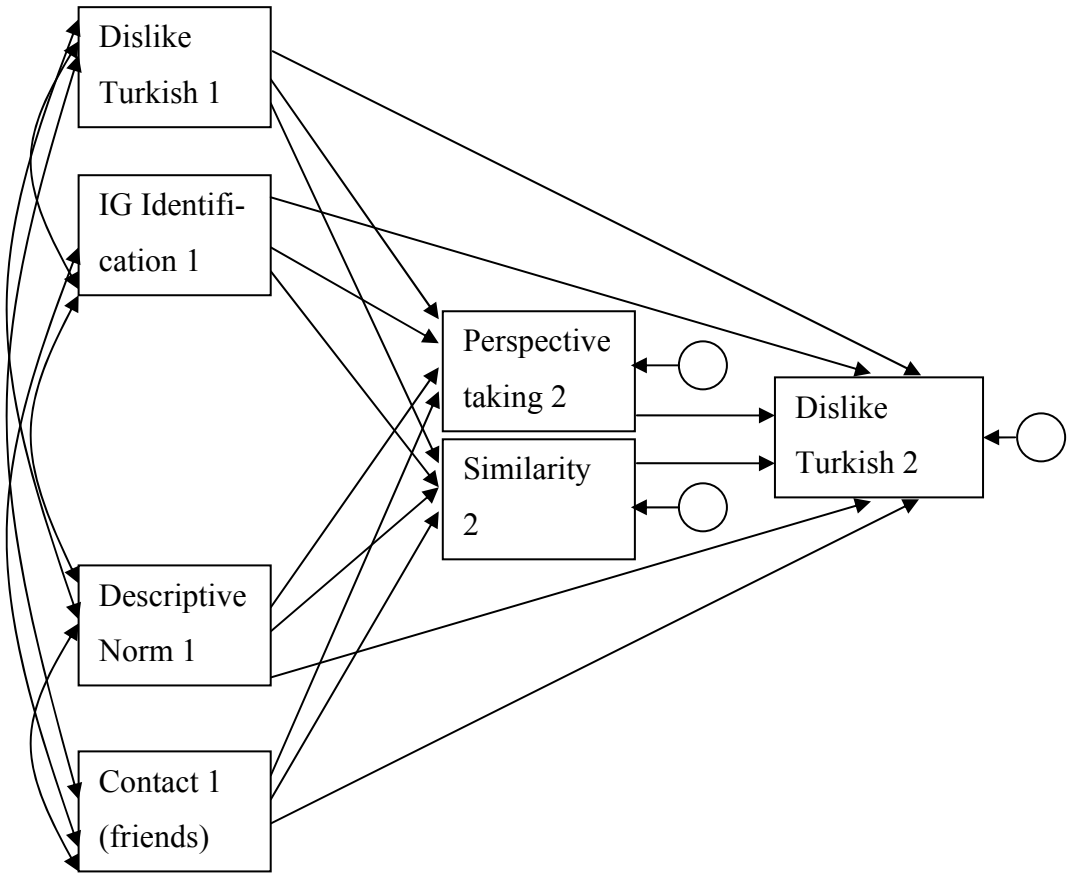
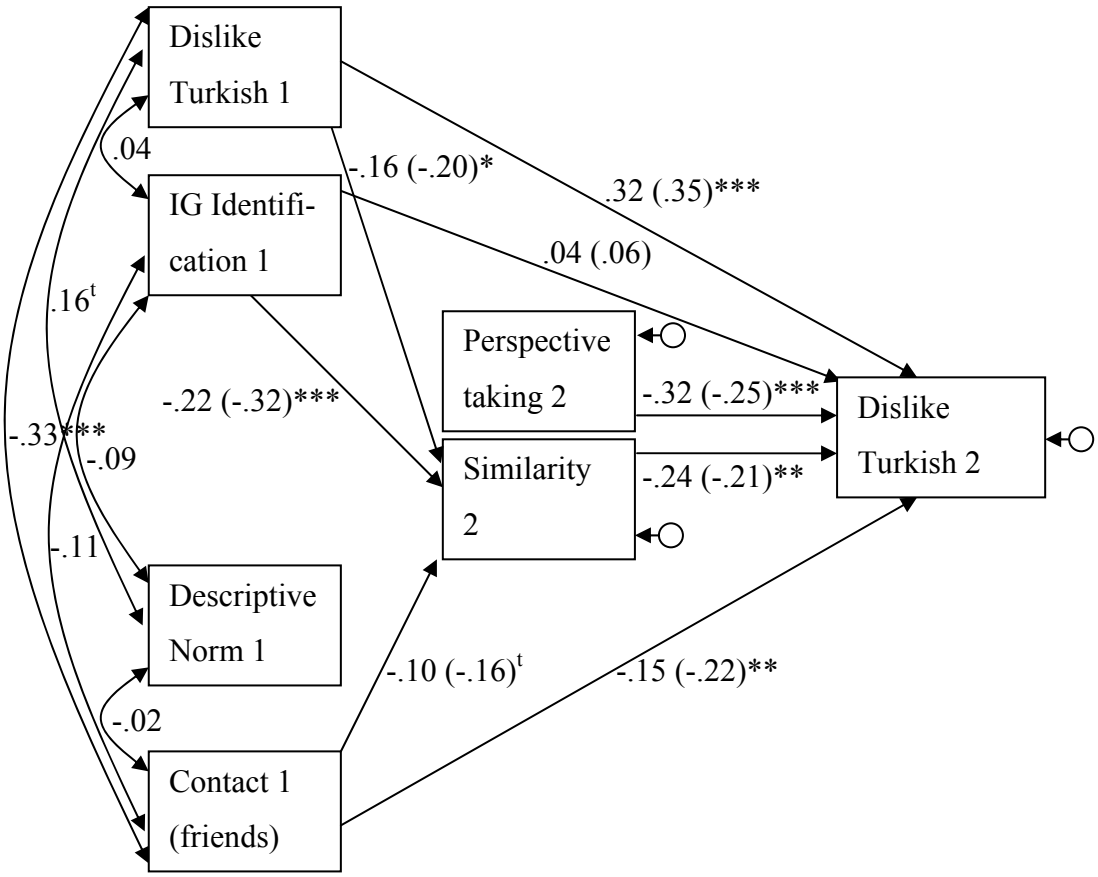


Figure 5 Best fitting mediation model (model 4) for dislike of Turkish immigrants.



Note. Standardised path coefficients in brackets, $N = 127$, missing values replaced by EM-estimates.

6. General discussion and implications

The Integrative Model of Intergroup Attitudes in Children assumes that macro-social context, socialisation, social factors, and individual factors result in specific intergroup attitudes in children. The model suggests that prejudice in children is mainly affected by social, societal, and individual aspects. The model is based on SCDT (Aboud, 1988), SIDT (Nesdale, 1999a), and integrative models of the development of prejudice in children (Aboud, 2005; Aboud & Amato, 2001; Bar-Tal & Teichman, 2005; Katz, 2003). As complex models can not be tested as a whole, the effect of a number of assumed factors of influence on prejudice derived from the model was tested in a first step.

To test the hypotheses, data were collected at six schools in 27 classes from May to July in 2005 and from May to June in 2006. There were 531 respondents at data collection 1 and 537 respondents at data collection 2. As the present study has a focus on intergroup attitudes in German children without immigration background, only the data from these respondents where used in the analyses. There were 181 respondents without immigration background at data collection 1, 206 at data collection 2, and 142 in the longitudinal sub-sample. The data from respondents who had skipped less than 5% of the items were used in the main analyses (192 in the cross-sectional analyses based on data collection 2; 127 in the cross-lagged analyses based on the longitudinal sub-sample). Missing values were replaced by EM-estimates using the Missing Values tool of SPSS in the longitudinal analyses. The questionnaire developed and used in the study was pretested with a cognitive (N = 4) and a Standard Pretest (N = 20).

The empirical results indicate a clear ingroup bias: ratings of dislike for the ingroup were significantly lower than the ones for Turkish immigrants, people immigrating, or people speaking another language (see manuscript 2). The response option *do not like them at all* was used to rate Turkish immigrants by 12% of the respondents at time 1 and by 9% of the

respondents at time 2. People immigrating were rated with this option by 3% and people speaking another language by 7% (time 1) and 6% (time 2), respectively. The option was never used to rate the ingroup. These results indicate that there were at least some children with prejudiced attitudes in the age group 8 to 13 years in the six schools. As these schools are ethnically diverse and foster tolerance, prejudice might be more frequent in schools with low numbers of immigrants or with intergroup conflict between children differing in immigration background.

Hypothesis 1 a) assumed that a higher general cognitive developmental stage fosters positive outgroup attitudes. This hypothesis was not supported by the empirical data: Ratings of dislike of Turkish immigrants were not significantly different between respondents categorised as pre-operational and those categorised as concrete or formal operational (see manuscript 1). As Aboud (1988) assumed that general cognitive abilities affect prejudice through the application in social information processing, it was tested if general cognitive effects were completely mediated by social cognitive factors. But there also was no significant correlation between the general cognitive stage and the social cognitive measure empathic perspective taking and no significant main effect of the general cognitive stage on empathic perspective taking (see manuscript 1). The lack of empirical support for H1a) might in part be due to the fact that only 13% of the respondents were categorized as pre-operational.

Hypothesis 1b) predicted that higher social-cognitive abilities reduce negative intergroup attitudes. In line with this hypothesis, a higher level of self-reported empathic perspective taking had a significant negative correlation with dislike of Turkish immigrants in cross-sectional analyses (see manuscript 1 and 2). The causal hypothesis could not be tested with longitudinal data because empathic perspective taking was not included in the data-collection-1 questionnaire. Perceived similarity assessed at time 2 had a significant and

negative correlation with the ratings of dislike at time 2 for Turkish immigrants and immigrants in general (see manuscript 2) which is in line with H1b).

That there was no relationship between the general cognitive developmental stage and the socio-cognitive measure empathic perspective taking (see manuscript 1) is not in line with hypothesis 1c) which assumed that social-cognitive abilities mediate the effect of general cognitive developmental stage on outgroup attitudes.

Hypothesis 2a) assumed that descriptive social norms affect intergroup attitudes. There was no empirical support for this hypothesis in the correlations over time or in the cross-lagged analyses (see manuscript 2): There were no significant correlations between descriptive norm at time 1 and dislike of Turkish immigrants or immigrants in general and no significant path from descriptive norm to prejudice. Perceived frequency of negative peer behaviour toward Turkish immigrants was used as indicator of a descriptive norm. This indicator might have been too implicit – 8- to 12-year-old children might not (yet) abstract an ingroup norm from perceived intergroup behaviour. A more explicit descriptive norm stressing the normative character of typical ingroup behaviour might have affected prejudice. Another possible explanation is that injunctive norms but not descriptive norms affect prejudice. Injunctive norms were related to prejudice in other studies (e.g. Rutland et al., 2007; Nesdale et al., 2005). In addition, children are likely to be confronted with different sources of information about ingroup norms by different peers and by the teachers. Some peers might show prejudiced behaviours but other might show tolerant behaviours. A study comparing the normative influence of parents, teachers, and different peer groups should be highly informative.

In line with hypothesis 2b) which assumed that friends' attitudes are positively correlated to respondents' attitudes, there was a significant positive correlation between respondents' ratings of dislike and their friends' mean ratings of dislike in the cross-sectional analysis (see

manuscript 1). But a Regression Analysis showed that friends' attitudes did not contribute to the prediction of prejudice when age, empathic perspective taking, contact, and indirect contact were included as well. These results indicate that friends' attitudes are a less important predictor than other factors. This matches the results of Aboud and Doyle (1996) and Ritchey and Fishbein (2001).

Hypothesis 3a) assumed that direct intergroup contact reduces prejudice. Intergroup friendships were assumed to be a very promising form of contact because they are likely to provide equal status contact, common goals, affective ties, and close, cooperative interactions (Pettigrew, 1998). The empirical results also indicate that intergroup friendships foster more positive intergroup attitudes. Preliminary empirical support for H3a) was provided by the cross-sectional analyses which showed a significant negative correlation between number of Turkish friends (t2) and dislike of Turkish immigrants (t2) as well as a significant and negative regression weight of number of Turkish friends with age, empathic perspective taking, friends' attitudes, and indirect contact controlled for (see manuscript 1). H3a) was supported by the cross-lagged analyses (see manuscript 2): The path from number of Turkish friends listed at time 1 to dislike of Turkish immigrants assessed at time 2 was significant and negative in a cross-lagged model containing autoregressive paths, paths from ingroup identification and number of Turkish friends assessed at time 1 to dislike of Turkish immigrants assessed at time 2, and from dislike at time 1 to ingroup identification, descriptive norm, and number of Turkish friends at time 2. The path from number of immigrant friends listed at time 1 to dislike of immigrants in general at time 2 was marginally significant and negative in a cross-lagged model with autoregressive paths, paths from ingroup identification and number of immigrant friends at time 1 to dislike at time 2, and from dislike at time 1 to ingroup identification and number of immigrant friends at time 2.

Hypothesis 3b) assumed that indirect contact reduces prejudice. There was a significant and negative correlation between friends' mean number of Turkish friends and respondents' dislike of Turkish immigrants in the cross-sectional analysis (see manuscript 1). But indirect contact had no significant regression weight and did not improve the percentage of explained variance when direct contact and other variables were controlled for. All schools participating in the study had a comparably high percentage of immigrant students which provides a lot of possibilities of direct contact. Therefore the results indicate that indirect contact does not contribute to reduced prejudice over and above the effects of direct contact in social environments with many possibilities of direct contact. But indirect contact might be very important if possibilities of direct contact are limited. Other studies show that indirect contact is influential in settings with low possibilities for direct contact (Christ et al., under review; Cameron et al., 2006).

Hypothesis 4 assumed that a strong identification with the ethnic ingroup fosters prejudice. Ingroup identification (in the sense of the self-rated importance of the membership in the ethnic ingroup) at time 1 had a significant and positive correlation with dislike of Turkish immigrants and immigrants in general at time 2 which is in line with hypothesis 4 (see manuscript 2). Empirical support for this hypothesis also comes from the cross-lagged analyses (see manuscript 2): The path from ingroup identification at time 1 to dislike of Turkish immigrants at time 2 was significant and positive in a model that also included the autoregressive paths, descriptive norm, and intergroup contact. The path from ingroup identification at time 1 to dislike of immigrants in general at time 2 was positive and marginally significant. Individuals who identify strongly with their ethnic ingroup seem to be more likely to show prejudiced attitudes than those with a weaker ingroup identification.

In addition to the empirical results related to the hypotheses, there were some additional results that should not be neglected (see manuscript 2): There was a significant positive path

from dislike of Turkish immigrants assessed at time 1 to descriptive norm at time 2. Prejudice seems to lead to perceptions of a prejudiced ingroup norm. The reason for the finding indicating that descriptive norms reflect rather than affect prejudice might be a false consensus effect: A child who is prejudiced toward a certain group might assume that other members of the ingroup share his or her prejudice and approve of prejudiced behaviours toward this group (see also Aboud & Doyle, 1996). Prejudiced children also might be more likely to spent time with friends and classmates who show negative behaviour toward outgroup members than children with a positive attitude. There was no significant path from dislike of immigrants in general at time 1 to descriptive norm at time 2. This might be due to the different levels of specification. Descriptive norm referred to the specific group Turkish immigrants but attitudes referred to immigrants in general as a higher order category.

There were (marginally) significant cross-lagged paths between number of Turkish friends listed and dislike of Turkish immigrants and between ingroup identification and dislike of Turkish immigrants and immigrants in general which indicate bi-directional relationships. The findings indicating that contact with members of a specific outgroup reduces prejudice toward this outgroup and prejudice reduces the likelihood of intergroup contact replicate the results by Levin, van Laar, and Sidanius (2003). In the cross-lagged model for dislike of immigrants in general, the path from dislike to contact was not significant. The paths indicating that a high importance of the ingroup membership fosters prejudice and that prejudice increase the importance of the ingroup membership is in line with the assumptions of SIT (Tajfel & Turner, 1986) and SIDT (Nesdale, 1999a).

In manuscript 2, analyses are reported that tested if the assumed causal effects of ingroup identification, descriptive norm, and direct contact were mediated by general empathic perspective taking and perceived intergroup similarity. Empirical results supported only one of the assumed mediator relations: perceived intergroup similarity seems to mediate the

effects of ingroup identification on prejudice. The marginally significant negative path from contact to perceived intergroup similarity in the model for dislike of Turkish immigrants was contrary to the expectation that contact fosters perceived similarity. Intergroup friendships were negatively correlated to perceived intergroup similarity and prejudice at the same time. Contact might not increase perceived similarity but change the evaluation of intergroup differences. Empirical results indicate that contact reduces prejudice because it results in the evaluation of intergroup differences as enriching and positive instead of threatening and negative (Wolf & van Dick, 2008). The fact that the remaining mediator assumptions were not supported suggests that other potential mediators should be tested in further studies (e.g. outgroup-related forms of empathic perspective taking or intergroup emotions; see also Pettigrew & Tropp, 2006).

With regard to possible limitations of the present study, some concepts were only assessed with one or two items and some single item measures were used in order to keep the questionnaire as simple and understandable as possible for the youngest respondents. The reliability of single-item measures is unknown and the paths in the cross-lagged model for dislike of Turkish immigrants were not controlled for the reliability of the measures. In the cross-lagged analyses the sample size was comparably small for the use of structural equation modelling (N = 127). This might be problematic for the more complex models for dislike of immigrants in general. But the results were comparable for the models for dislike of Turkish immigrants and immigrants in general.

The main advantages of the study are that different possible factors of influence were compared in a longitudinal design (see manuscript 2), that the predictive value of cognitive, social-cognitive, and social predictors were compared cross-sectionally (see manuscript 1) and that the measures for intergroup contact, indirect contact, and friends' attitudes were assessed in a comparably objective way. Asking participants to lists the names of their

outgroup friends should be less vulnerable to biases than subjective ratings of frequency of intergroup contact or similar measures which are frequently used. Friends' actual self-reported attitudes and friends' number of outgroup friends listed were used as measures of social influence and indirect contact.

The six schools had a comparably high percentage of immigrant students and all schools had programs or approaches to foster harmonious relations between students and integration of immigrant students. Therefore the results are informative for schools with medium to high percentage of students with immigrant background. The conclusions drawn from this study may not apply to schools with no or few students with immigrant background or schools without approaches to foster harmonious relations between students.

The integrated model and the empirical results have implications for prevention and intervention aiming at positive intergroup attitudes in school children. The integrated model suggests that there are many approaches to prevent or reduce ethnic prejudice by designing and implementing structured programs: Heterogeneity of the social context is assumed to foster unprejudiced attitudes. This suggests that schools and school classes should be composed of students with and without immigration background. Even in areas with a high percentage of immigrants, students with immigrant background often are clustered in one school class. Spreading them over different classes would provide opportunities of contact for a larger number of students without immigration background. Teachers should provide social norms of tolerance and signal that prejudiced statements or behaviour are not approved of. School books should be designed carefully in order to prevent content that fosters prejudice or stereotypes. Intergroup contact (or where there is a lack of contact opportunities indirect contact) should be fostered by installing a norm that intergroup contact is supported by ingroup and authorities and by providing contact opportunities. Social-cognitive abilities like general and group-specific empathy and perspective taking can be

integrated in the curriculum or fostered by extra-curricular activities. With regard to the larger social setting, social norms of tolerance and against prejudice and discrimination should be provided by the media and by social agents like politicians. Children's books and films can foster prejudice or positive intergroup attitudes depending on the content and outgroup images provided. An approach that proved to be quite effective were versions of the children's TV program "Sesame Street" showing friendly contact between Israeli and Palestinian children (Bar-Tal & Teichman, 2005).

School is a very promising context for prevention and intervention aiming at the reduction of prejudice and negative attitudes. Later in life, those individuals with the most negative attitudes are least likely to take part in programs focussing intergroup attitudes. The empirical results of the present work indicate that fostering contact and / or indirect contact might be an effective way to improve intergroup attitudes – especially if the contact results in intergroup friendships. "Cooperative Learning" subsumes intervention or prevention strategies in class with the purpose to install contact under optimal conditions according to Allport (1954) which should make it very likely that intergroup contact leads to reduced prejudice. The core idea of cooperative learning is that students work together in small groups that are heterogeneous with regard to ethnicity, performance level, and gender on a common group task. The groups will only be successful and get a reward or good grades if all small group members contribute to solving the group task (interdependence and individual accountability). There are several variants of cooperative learning that are discussed and described in detail by Slavin (1995). Evaluations of cooperative learning showed that it fosters intergroup friendship and interactions (e.g. Slavin, 1995) and that students – especially those from ethnic minorities – learn more in cooperative learning classes than in traditional lessons (Slavin, Hurley, & Chamberlain, 2003). One example for a cooperative learning technique is the Jigsaw-Program. Studies by the working group of

Aronson showed that students from Jigsaw-classrooms compared to students from the control classes with traditional schooling showed significantly less prejudice and negative stereotypes, were more self-confident, showed equivalent or better performance in general achievement tests, had more positive attitudes toward school, and were absent from school less frequently (e.g. Aronson, 2002).

Prevention programs in schools are very promising because they reach all individuals of an age group (Dollase, 2001 / 2002). Dollase recommends integrative strategies for multi-cultural school classes that reduce the psychological importance of ethnic group membership and provide resources for solving interethnic conflict at schools. This is in line with the empirical results showing that importance of the membership in the ingroup fosters prejudice. To achieve these goals, interethnic differences should not be stressed and cooperation and socially competent behaviours should be fostered and rewarded (Dollase, 2001). Teachers should learn competencies, norms and values that facilitate multicultural education and positive class climate. Dollase also suggests that classes should be multi-cultural instead of bi-cultural and that it is important that immigrants' language skills are adequate.

Extra-curricular programs have been designed to foster specific social-cognitive abilities or aspects that are theorised to reduce prejudice in children. Stephan and Finley (1999) discussed fostering empathy as a means of improving intergroup attitudes. They reported that an empathy training in 7- to 11-year-olds (30 hours) increased pro-social behaviour and self-esteem. The children improving most in their role-taking abilities over time showed the greatest reductions in prejudice. Stephan and Finley argued that intergroup relation programs should combine information about the outgroup with the explicit request to empathise with the outgroup and to take the outgroup members' perspective. Before this, empathy has to be trained (e.g. by the means of role play). Empathy has to be associated to respect for the

outgroup and should not cause threat (e.g. by providing information about victimization) in order to avoid unwanted negative effects. Aboud and Fenwick (1999) evaluated the “More than meets the eye” program which aims at the reduction of prejudice in children by focussing children’s attention to individual instead of ethnic attributes of others. The program contains group discussions, problem focussed dyadic work, and individual work on materials focussing on the personal qualities of people and takes place once or twice a week (11 weeks). Participants describe themselves in perceivable as well as personal attributes, compare their profiles with good friends and a less acquainted classmates, and are introduced to a class of fictional „Hoozhoo“-children with names, photographs and characteristic strengths, weaknesses, likes and dislikes, dreams and sorrows and personality traits. The “Hoozhoo”-children belonged to different ethnic groups. The control group had normal lessons focussing on personal and social development. Data were collected before the intervention and two months after the intervention. For White children, the intervention led to increased use of internal attributes and reduced prejudice scores in highly prejudiced children. There was no change in the control group and in Afro-American children.

Prevention and intervention programs in school meant to foster positive intergroup attitudes are important to prevent intergroup conflict, discrimination, or contact avoidance in ethnically diverse social settings. It is important to design such programs based on factors of influence supported by empirical results. The present study suggests fostering positive intergroup contact and friendships and reducing the importance of ingroup membership. In addition, programs have to be evaluated to ensure positive effects and preclude unwanted negative effects.

7. Summary

7.1 Abstract

German society is becoming more ethnically diverse – almost every fifth person has an immigration background (Statistisches Bundesamt, 2007). Unprejudiced intergroup attitudes are important in diverse societies to prevent intergroup tensions and discrimination. Theories of prejudice acquisition and development assume that intergroup attitudes are formed during childhood and adolescence (Aboud, 1988; Bar-Tal & Teichman, 2005; Nesdale, 1999a). Therefore the present work studied potential factors of influence on prejudice in school-children. Based on Social Cognitive Developmental Theory, Social Identity Development Theory, and integrative models like the Integrative Model of the Formation of Stereotype and Prejudice, a model was suggested. This model includes factors of influence from the macro-social context and socialisation, as well as social and individual factors of influence. Four hypotheses were deduced from the theoretical model and relevant empirical studies which assumed that general cognitive developmental stage (H1a), social-cognitive abilities like empathic perspective taking or perceived intergroup similarity (H1b), descriptive social norms (H2a), friends' intergroup attitudes (H2b), direct and indirect contact (H3a and b), and strength of ingroup identification (H4) affect intergroup attitudes. In addition, social-cognitive abilities are hypothesised to mediate the effects of general cognitive development on prejudice (H1c). In order to test these hypotheses, data were collected at 6 schools in 27 classes in 2005 and 2006. As the study focuses on German children's attitudes toward immigrants, only the data of respondents without immigration background were used. There were 181 respondents without immigration background at time 1, 206 at time 2, and data could be matched for times 1 and 2 for 142 respondents. Analyses based on data-collection-2 data did not support hypothesis 1a) and 1c). The analyses did not show an effect of general cognitive developmental stage on prejudice. Empathic perspective taking significantly

predicted lower prejudice even with other variables controlled for which is in line with hypothesis 1b) but does not allow conclusions about causal effects. Cross-lagged analyses did not support hypothesis 2a): there was no significant path from descriptive norm assessed at time 1 to prejudice at time 2. In line with hypotheses 2b) and 3b) the cross-sectional correlations between friends' attitudes (positive) and indirect contact (negative) were significant. But neither friends' attitudes nor indirect contact contributed significantly to the prediction of prejudice when other variables like direct contact were controlled for. Cross-lagged analyses supported hypotheses 3a) and 4): There was a significant negative path from direct contact at time 1 and a significant positive path from ingroup identification at time 1 to prejudice toward Turkish immigrants at time 2. The paths from the two assumed factors of influence assessed at time 1 to prejudice of immigrants at time 2 were marginally significant and in the expected direction. Additional results indicate bi-directional relations between direct contact and prejudice as well as between ingroup identification and prejudice. The search for possible mediators between the assumed factors of influence and prejudice only provided empirical support for the assumed mediating role of perceived intergroup similarity for the effect from ingroup identification on prejudice. Taken together the results advocate that programs meant to prevent or reduce prejudice in children can use approaches that foster intergroup contact and reduce the importance of ethnic ingroup membership.

7.2 Zusammenfassung

Die ethnische Vielfalt in der deutschen Gesellschaft nimmt zu – bereits jede fünfte Person, die in Deutschland lebt, hat einen Migrationshintergrund (Statistisches Bundesamt, 2007). In einer heterogenen Gesellschaft sind tolerante Einstellungen wichtig, um Spannungen zwischen verschiedenen Herkunftsgruppen sowie Diskriminierung ethnischer Minderheiten zu vermeiden. Theorien über den Erwerb und die Entwicklung von Vorurteilen gehen davon aus, dass Intergruppeneinstellungen in Kindheit und Jugend entstehen (Aboud, 1988; Bar-Tal & Teichman, 2005; Nesdale, 1999a). Die vorliegende Dissertation beschäftigt sich daher mit möglichen Einflussfaktoren auf Vorurteile bei Kindern im Schulalter. Ausgehend von der Social Cognitive Developmental Theory, der Social Identity Development Theory, und von integrativen Modellen wie dem Integrative Model of the Formation of Stereotype and Prejudice wurde ein integratives Modell entwickelt. Dieses Modell beinhaltet Faktoren des makrosozialen Kontextes und der Sozialisation sowie soziale Faktoren und Personenmerkmale, die einen Einfluss auf Vorurteile im Schulalter haben. Aus diesem Modell und der bisherigen empirischen Forschung zu Vorurteilen bei Kindern wurden vier Hypothesen abgeleitet. Diese Hypothesen beinhalten die Annahmen, dass Vorurteile vom allgemeinen kognitiven Entwicklungsstand (H1a), von sozial-kognitiven Fähigkeiten wie empathischer Perspektivübernahme oder wahrgenommener Ähnlichkeit zwischen Gruppen (H1b), von deskriptiven sozialen Normen (H2a), den Einstellungen der Freunde (H2b), von direktem und indirektem Kontakt (H3a und b), sowie von der Stärke der Identifikation mit der eigenen ethnischen Gruppe (H4) beeinflusst werden. Außerdem wurde angenommen, dass der Einfluss des kognitiven Entwicklungsstandes auf Vorurteile von sozial-kognitiven Fähigkeiten mediiert wird (H1c). Um diese Hypothesen empirisch zu testen, wurden an 6 Schulen in 27 Klassen in den Jahren 2005 und 2006 Daten erhoben. Der Fokus der Studie liegt auf der Einstellung deutscher Kinder zu Migranten. Daher wurden nur die Daten der

TeilnehmerInnen ohne Migrationshintergrund in den Analysen genutzt (N = 181 bei der ersten Erhebung und 206 bei der zweiten). Die Daten aus beiden Erhebungszeitpunkten konnten für 142 TeilnehmerInnen einander zugeordnet werden. Analysen mit den Daten der zweiten Datenerhebung lieferten keine empirische Unterstützung für die Hypothesen 1a) und 1c). Die allgemeine kognitive Entwicklungsstufe hing nicht signifikant mit Vorurteilen zusammen. In Übereinstimmung mit Hypothese 1b) war empathische Perspektivübernahme auch unter Kontrolle anderer Variablen ein signifikanter Prädiktor für geringere Vorurteile. Dies erlaubt jedoch keine Schlussfolgerungen über einen kausalen Zusammenhang. Cross-lagged Analysen lieferten keine empirische Unterstützung für Hypothese 2a): es gab keinen signifikanten Pfad von der wahrgenommenen deskriptiven Norm zum Zeitpunkt 1 zu Vorurteilen zum Zeitpunkt 2. In Übereinstimmung mit den Hypothesen 2b) und 3b) waren die Korrelationen zwischen den Einstellungen der Freunde und Vorurteilen (positiv) und zwischen indirektem Kontakt und Vorurteilen (negativ) im Querschnitt signifikant. Allerdings trug keine der beiden Variablen zur Vorhersage von Vorurteilen bei, wenn andere Einflussfaktoren (z.B. direkter Kontakt) kontrolliert wurden. Die Ergebnisse der cross-lagged Analysen stützen die Hypothesen 3a) und 4): Der Pfad von direktem Kontakt zum ersten Zeitpunkt zu Vorurteilen gegenüber türkischen Immigranten zum zweiten war signifikant und negativ; der Pfad von Identifikation mit der eigenen ethnischen Gruppe zum ersten Zeitpunkt zu Vorurteilen zum zweiten war signifikant und positiv. Die Pfade der beiden Variablen zum ersten Zeitpunkt zu Vorurteilen gegenüber Immigranten allgemein zum zweiten waren marginal signifikant. Zusätzliche Ergebnisse weisen auf wechselseitige Zusammenhänge zwischen Vorurteilen und Kontakt sowie zwischen Vorurteilen und der Identifikation mit der eigenen ethnischen Gruppe hin. Empirisch unterstützt wurde nur die angenommene Mediation des Effektes von Identifikation auf Vorurteile durch wahrgenommene Ähnlichkeit zwischen verschiedenen Gruppen. Alle weiteren

angenommenen Mediatoren wurden durch die empirischen Ergebnisse nicht unterstützt. Die empirischen Ergebnisse der vorliegenden Studie weisen darauf hin, dass Programme zur Prävention oder Reduktion von Vorurteilen bei Kindern auf Ansätze zurückgreifen können, die Kontakte zwischen Mitgliedern verschiedener ethnischer Gruppen fördern und die Bedeutsamkeit der Zugehörigkeit zur eigenen ethnischen Gruppe reduzieren.

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10. Erklärung

Ich versichere, dass ich die vorliegende Dissertation “If you don’t like them by now – what makes you like them next year? Social-cognitive and social predictors of prejudice in school children in a two-wave longitudinal study” selbständig und ohne unerlaubte Hilfe angefertigt habe. Dabei habe ich mich keiner anderen als der von mir ausdrücklich bezeichneten Quellen und Hilfen bedient.

Die Dissertation wurde weder in der jetzigen noch in einer ähnlichen Form bei einer anderen Hochschule eingereicht und hat noch keinen sonstigen Prüfungszwecken gedient.

_____ _____

Tina Farhan Ort und Datum

11. Appendix

The appendix contains an overview and evaluation of relevant measures used in studies with children as well as a description of the measures developed and used in the present study (see 11.1). In addition, some pretest results are reported (see 11.2). The different versions of the questionnaire used during data collections 1 and 2 can be found in appendix 11.3. Appendix 11.4 contains the general instructions and additional explanations provided during the data collections. The remaining pages provide information about characteristics of the participating schools (see 11.5), characteristics of the sample (see 11.6), and characteristics of the data (see 11.7) as well as results from scale formation (see 11.8), descriptive results (see 11.9), and correlational results (see 11.10).

11.1 Questionnaires for children – overview of available measures

A) Prejudice

Prejudice in children has been assessed with diverse measures in different studies. One of the earliest strategies was the *doll technique* (Clark & Clark, 1947). Children can choose one of four dolls in response to requests like “Give me the doll you would like to play with.” or “Give me the doll which has the nice colour”. There are two dark-skinned black-haired dolls and two light-skinned blond ones. Typically, the doll test was not used to assess individual attitudes but the consensual attitude in the sample. It gives an impression of the general tendency of children to show negative attitudes toward the racial outgroup, e.g. the percentage of White children choosing the black doll in answer to negative questions and the white one in answer to positive ones (Aboud, & Amato, 2001). A similar strategy is used in two tests by Horowitz (1936): In the *Rank Test*, participants sort photos or drawings of Anglo- and African-American children into a ranking in answer to the question “Show me which child you like best.” The *Show Me* test is a social distance measure in which respondents have the task to point to all depicted people they would like to be in class or play a game with. Choice-tasks with photos or drawings varying in indicators of ethnic group membership were used to assess children’s preference for playmates (“Which of these children would you like to play with?”) or the ideal self (“How would you like to look like?”) as indicators of ethnic attitudes (Cramer & Anderson, 2003; Davey & Mullin, 1980; Richardson & Green, 1971). A variation of this strategy was used by Lambert und Taguchi (1956) who asked children to choose a photo they liked best and choose a partner they wanted to be photographed with.

Another common approach is the *trait ascription* task. Horowitz and Horowitz (1938) asked children to ascribe a number of positive and negative attributes to two different target people represented by a photograph or drawing who belonged to different ethnic groups. In the

Revised Preschool Racial Attitude Measure (PRAM II), respondents ascribe positive and negative statements to drawings of White and Black children in response to the question "Which child fits this description?" (Williams, Best & Boswell, 1975). Based on the trait ascriptions a Pro-White/Anti-Black-Bias score is computed. In a study by Cramer and Anderson (2003), four short stories were read to the respondents, each telling about one nice and one mean child. Respondents were asked to choose a nice and a mean child from a set of depicted children varying in skin colour and weight.

Binary choice tasks are problematic because ingroup bias and outgroup derogation can not be distinguished. If a respondent chooses one stimulus this does not necessarily imply that the respondent rejects or derogates the other. The use of more than two response options is much more informative. For example, respondents can be allowed to ascribe traits to the ethnic ingroup, an ethnic outgroup, to both categories, or to none of the groups (Black-Gutman & Hickson, 1996; Doyle, Beaudet & Aboud, 1988). A variation of this strategy was used by Davey (1983) who asked children to sort cards with positive or negative attributes to four boxes labelled with the names of three ethnic groups and *nobody*. In another study, respondents ascribed six positive and six negative attributes to national in- and outgroups which were represented by the group-label (Bennett, Barrett, Karakozov, Kipiani, Lyons, Pavlenko, & Riazanova, 2004). One of the most frequently used measures is the *Multiresponse Racial Attitude Measure* (MRA). In the MRA, 10 positive and 10 negative statements with concrete behavioural examples and a drawing are given to the respondents – each on three identical cards. These cards can be put into one, several, or all of the boxes representing three ethnic groups (e.g. Aboud & Fenwick, 1999; Doyle, Beaudet & Aboud, 1988; Doyle & Aboud, 1995). These boxes are marked with verbal labels and a schematic head-to-shoulder drawing. The sum scores of the number of positive and negative attributes ascribed are computed for each of the three ethnic groups. With the help of these scores an

ingroup and an outgroup sum score, a bias score indicating ingroup bias and outgroup derogation, and a counter-bias score indicating outgroup bias and ingroup derogation are computed. Doyle and Aboud (1995) reported a good internal consistency *Cronbach Alpha* ($\alpha_{positive\ White}$ = .90, $\alpha_{negative\ White}$ = .89, $\alpha_{positive\ Black}$ = .83, $\alpha_{negative\ Black}$ = .79) and good retest reliability with an interval of two weeks ($r_{tt\ positiv\ White}$ = .48, $r_{tt\ negativ\ White}$ = .66, $r_{tt\ positiv\ Black}$ = .68, $r_{tt\ negativ\ Black}$ = .71).

When intergroup attitudes are assessed with trait ascriptions, the distinction between prejudice and stereotypes is important. Aboud (1988) defined stereotypes as rigid, over-generalised beliefs about attributes ascribed to all members of a certain group. Therefore the MRA might measure negative stereotypes about ethnic groups instead of prejudice or negative attitudes. According to Aboud (1988), trait ascriptions measure prejudice instead of stereotypes if the traits are evaluative and not just descriptive. The MRA uses attributes that imply a negative or positive valence and thus assesses prejudice. A variant of the trait ascription task asked respondents to judge how many children in the ethnic in- and outgroup exhibit each of a number of positive and negative attitudes on a 5-point-scale from *none* to *all* (e.g. Verkuyten, 2002).

Trait ascription tasks have the disadvantage that the salience of the social category ethnicity is artificially increased due to the stimuli varying in indicators for ethnic group membership only. In addition these tasks do not provide information about the intensity of intergroup attitudes.

For the assessment of *affective attitudes*, ratings of liking or dislike toward national or ethnic groups have been used (Avci-Werning, 2004, Durkin & Judge, 2001, Verkuyten & Thijs, 2001). These typically are supplemented with smiling, neutral, and sad faces. Judgements about in- and outgroup with different social categories have also been assessed with verbal response options from *I do not like them at all* to *I like them very much* (Bennett, Barrett,

Karakozov, Kipiani, Lyons, Pavlenko & Riazanova, 2004; Kiesner, Maass, Cadinu & Vallese, 2003). Another variation of this task are graphic response scales with the extreme poles *very likable* and *less likable* (Mitulla, 1997; Wagner, 1982) or school grades from *very good* to *inadequate* (Dollase, Ridder, Bieler, Köhnemann & Woitowitz, 2000a). In American studies the *Liking Board* has been used (Aboud & Mitchell, 1977). Participants are asked to place photos of target people on a board. The task is to place these photos closer to the own photo if the depicted person is liked and farther away if the person is disliked. Target persons vary in characteristics like ethnicity. Kiesner, Maass, Cadinu und Vallese (2003) asked their respondents to evaluate how much they liked a number of different groups, how likable these groups were, and how trustworthy members of the groups were. Response options ranged from *not at all* to *very much*. This approach was highly internally consistent (*Cronbach Alpha* = .82 to .91) but seems to be too complex to be used in elementary school. Different ratings for the ethnic groups in question have the advantage that attitudes are assessed separately and ingroup preference can be distinguished from outgroup acceptance or rejection (Aboud, 1988). In addition, ratings provide information about the intensity of dislike.

In some studies intergroup attitudes were assessed with *attitude items* comparable to those used in studies with adult respondents, e.g. “Foreign children disturb the lessons in school.” or “Foreigners take away our jobs” (Mitulla, 1997; Noack, 2001). This might be appropriate for older children or adolescents. For elementary school children this rather abstract and purely verbal approach might be too difficult. In addition, prejudiced statements might confront students with ideas they did not have before. If children read such statements in school, they might believe that the statements are true. Thereby items used in adult questionnaires might induce prejudice in children.

An indirect and more time-consuming approach is the use of *stories*. In one approach, children listen to stories in which the ambiguous behaviour of a character can be interpreted as positive, neutral, or negative (e.g. Mitulla, 1997). Afterwards, they are asked to evaluate the characters' behaviour. Characters vary in their ethnic group membership. If behaviours are judged as negative more often for characters belonging to an ethnic outgroup than for characters belonging to the ingroup, prejudiced attitudes are inferred. In a similar method, a negative behaviour is described and respondents are asked to guess which of a number of children varying in ethnicity performed this behaviour (Brunner, Bauer & Mendrzyk, 1995). The *Intergroup Narrative Test* (Nesdale, 2000; Nesdale & McLaughlin, 1987) presents a number of positive or negative traits and behaviours shown by an ingroup and an outgroup character in a short story. After listening to the story, children are asked which character showed which behaviours in the story. In addition, they are asked to evaluate both characters and to explain why the characters might have behaved the way they did.

Another indirect approach is the *observation of interactions* between children in their daily lives or in standardised situations like games or playing with dolls (Brunner, Bauer & Mendrzyk, 1995; Goodman, 1946; Fishbein & Imai, 1993). This method is also rather time-consuming and more appropriate for the assessment of discrimination than prejudice. Another measure often used in intergroup studies which focuses on discrimination rather than attitudes is *social distance*. Respondents are asked which of a number of common activities like going to same class or inviting a peer for dinner they could imagine with a certain target person (Morgenroth & Ibaidi, 2002; Zinser, Rich & Bailey, 1981). In another version, respondents are asked how close they would like to sit to members of a target group in a restaurant (Durkin & Judge, 2001). Ridder and Dollase (1999) asked school students which composition they would prefer in their class (*German classes, many German and*

some Turkish students, *equal numbers of German and Turkish students*, *many Turkish and some German students*, or *Turkish classes*).

All measures used for the assessment of interethnic attitudes in children have certain advantages and disadvantages (see also Aboud, 1988). Dolls as stimuli have the advantage that they are almost projective material which prevents the impact of individual characteristics of the target and response bias based on fear of retaliation. But dolls do not seem appropriate for studies with older children. In addition, younger children might just prefer familiar toys which would make their choices non-diagnostic. In photographs, several attributes of the depicted people can be varied simultaneously. This allows for a comparison of the influence of different attributes. Drawings make it easier to design stimuli with comparable levels of attractiveness and other important aspects for all ethnic groups. In drawings, only one attribute can be varied or several attributes at the same time. A common disadvantage of dolls, photographs, and drawings is that they are strongly based on perception. They assess attitudes toward the varied attributes first of all. Classmates as stimuli make evaluative judgements easier for children because they are real people with whom interaction-based experiences do exist. But it is difficult to infer children's evaluation of the outgroup from their evaluation of outgroup members in class. Classmates are individuals the child is familiar with and their personality might be more important for evaluations than their group membership.

Choice tasks with dolls or pictures provide information about the number of children showing biased responses rather than about individual levels of prejudice. In addition, they require individual testing and are not appropriate for the assessment of interethnic attitudes in class. The story-based indirect measures as well as observations are quite time-consuming. Observations and social distance scales assess discrimination rather than prejudice. Items similar to the ones used for surveying adults do not seem appropriate for elementary school

children and might introduce prejudiced ideas to them. Therefore, the measures chosen in this study are the MRA and ratings of liking or dislike. Using the MRA makes the results comparable to data from Northern American studies. The MRA has been used successfully from kindergarten to school age in a large number of studies. Ratings how much respondents like or dislike the ingroup and a number of outgroups will provide information about the intensity of positive or negative affect toward several groups.

In the **M**ultiresponse **R**acial **A**ttitude Measure (Doyle & Aboud, 1995), respondents are given ten positive and ten negative statements with additional concrete behavioural examples and a drawing. Each statement is written on three identical cards. The children are asked: "Is it the black child, the white child, the Indian child, or more than one child who is [trait]?" They have to put the statements into one or more of three boxes representing „white child", „black child", and „Indian child" respectively. The boxes are marked with a head-to shoulders-drawing of a child having the same gender as the participant. For the present study, three positive (helpful, friendly and good) and four negative items (mean, cruel, unfriendly, and bad) were chosen, translated, and reformulated to make them as comprehensible for children as possible. Because some of the items did not seem appropriate for the relevant age group, three additional items were formulated with the attributes dishonest, nice, and honest. The decision for or against the attributes was based on considerations regarding comprehensibility (egoistic, imaginative) and relevance for 3rd- to 6th-graders (lazy, hardworking, rude, clean, and dirty). In addition, attributes associated to intelligence (clever, stupid) were excluded. A paper-and-pencil response format was used instead of response boxes. The two ethnic groups, Turkish and German children, were represented by group labels and drawings. The response options were meant to allow for assessing ingroup bias and outgroup derogation separately. That is why respondents could choose the options *the German children, the Turkish children, the German* ***and*** *the Turkish*

children, or *none of the two groups*. In the cognitive pretest, one of the children reported that she had thought about her classmates to draw conclusions about other peers ("*Weil es in meiner Klasse auch so ist.*"). The 2nd-grader and the 3rd-grader could not give an explanation for their responses ("*Weiß nicht, warum.*", "*Ich hab einfach angekreuzt, was ich gedacht hab'.*"). The examples given to define the traits were perceived as helpful. One girl mentioned that she did not understand some of the words before she read the associated examples ("*Manche Wörter kannte ich nicht, aber dann hab' ich noch mal gelesen, was dabei steht und dann hab' ich's verstanden.*"). The 3rd-graders in the standard pretest (*N* = 20) read five positive and five negative attributes. The pretest showed that the respondents lost interest in the task due to the similarity of the 10 items. Therefore only three of the five positive and negative attributes were chosen. Despite the fact that the sample size was rather small, internal consistency scores were used as guideline for the item selection. The best internal consistency scores emerged for the three positive attributes nice, neat, and honest (*Cronbach Alpha* = .62) and the three negative attributes unfriendly, mean, and dishonest (*Cronbach Alpha* = .84). The final version of the MRA used in the first data collection was located on pages six to nine of the questionnaire (see appendix 11.3 A to C). The introduction showed four drawings with the statement "This is a group of children whose family is from Germany". Then four drawings were introduced as "This is a group of children whose family came from Turkey to Germany years ago". The drawings were followed by the instruction: "In a moment you will read a number of descriptions what people can be like. Please tick to whom the respective description fits. In addition you are to tick how you like it if somebody is that way." Page six also contained an example using the neutral attribute "Some children have a sweet tooth. They like chocolate and candies". The first MRA item was "Some children are **nice** – they visit classmates if these are ill. What do you think for whom this description is true? Tick it". The remaining items used the traits

dishonest, mean, neat, unfriendly, and honest. Each of the pages seven to nine contained one positive and one negative item. There was one version for girls and one version for boys with female faces for female and male faces for male respondents. In order to find out if the children perceived the valence of the attributes in the intended way, respondents were also asked "How do you like it if a person is …?" in the data-collection-1 questionnaire. The response options were *very good*, *good*, *not so good*, and *bad* and were illustrated by happy to sad faces. In the data-collection-2 questionnaire, the MRA items still were located on pages six to nine (see appendix 11.3 D and E). The ratings of valence for the six attributes had been dropped.

Ratings of liking or dislike have been used with verbal response options and / or smiling or sad faces. Avci-Werning (2004) asked children to rate how much they liked or disliked eight ethnic or national groups, e.g. Turkish people, Polish people, and Germans on a 4-point scale from *like them a lot* to *do not like them at all*. Smileys were illustrating the response options. Verkuyten and Thijs (2001) assessed respondents' evaluations of ethnic ingroup and outgroups as well as the two gender categories with a 7-point scale illustrated with faces from very happy to very sad. In the present study, ratings of liking or dislike with verbal anchors and smiling to sad faces were used. The different ethnic target groups were represented by the group-label. All children participating in the cognitive pretest found the task to evaluate groups with the help of happy to sad faces easy. In the standard pretest, most of the children used the response options in the intended way. Only a few made a cross between two response options. The ratings of liking or dislike of several ethnic groups were located on pages three and four in the data-collection-1 and -2 questionnaires (see appendix 11.3). The instruction was: "In Germany, people whose family has always been living in Germany live alongside with people whose family came to Germany from another country (e.g. from Turkey or Poland). Please evaluate the following groups of people living in

Germany. If you do not know a member of one of these groups please evaluate the group the way you think they are! Tick the faces that describe your evaluation of the group best. **Tick only one face in each box!**" In the first item, respondents read "I like Germans…" and were asked to complete the statement by choosing one of the response options *very much*, *much*, *not so much*, and *not at all*. The remaining items asked respondents how much they liked "German girls", "German boys", "Turkish people living in Germany", "Turkish girls", "Turkish boys", "Italian people living in Germany", "Russian people living in Germany", "People coming to Germany from another county", and "People speaking another language than I do.". The order of the items was the same in all questionnaires to allow for reading the questionnaire to the children. Studies aiming at assessing individuals' attitudes toward ethnic outgroups in a given society should take into account that ethnic labels might be linked to specific evaluations (Bar-Tal & Teichman, 2005; Kowalski & Lo, 2001). It is likely that the ratings of liking or dislike assess children's attitudes toward the labels used to indicate the target group. The respondents might not be sure who is addressed by these labels. Nevertheless, this measure is highly informative because children's evaluations of people might be affected by this kind of attitudes once they learn to categorize them into ethnic groups and apply the labels used in society to individuals and groups.

B) (Social-) Cognitive developmental level

Aboud (1988) assumed a relationship between cognitive abilities, their application to the social domain, and the level of prejudice in children. Therefore, general cognitive developmental stage and social-cognitive abilities were assessed in the present study.

Aboud's (1988) conception of cognitive development is closely related to Piaget's theories. One test to assess cognitive developmental level is the PIA-AUF by Krampen (2002). The PIA-AUF ("*Aufgaben für die Entwicklungsdiagnostik des kognitiven Entwicklungsstandes nach der Theorie von Jean Piaget*") is a test for subjects between the age of 3 and 17 years.

It has 13 subtests with tasks that assess abilities like conservation of amounts and classification skills. Respondents can be categorized into one of the four cognitive developmental stages suggested by Piaget based on their test results and clear criteria. Only individual testing but not testing in class is possible with the PIA-AUF due to the test materials' interactive nature. Another test for the assessment of general cognitive stage is the TEKO ("*Testbatterie zur Erfassung kognitiver Operationen*", Winkelmann, 1975). The TEKO has nine subtests (e.g. class inclusion and conservation of masses) and is a paper-pencil-test. It also is intended for individual testing and asks for arguments for the chosen response option. Norms for the TEKO are only available for 5- to 8-year-olds (some subscales also differentiate between up to 10-year-olds). Another disadvantage is that the testing lasts one hour if all tasks are used. Zakrisson (1992) used a test by Bergström (1990) to categorize respondents into one of the four cognitive developmental stages assumed by Piaget. This measure can be used in groups and therefore also in class. With only 15 items it allows for categorizing children into preoperational, concrete operational, and formal operational stage.

The test Likhetsrelationer 2 (Bergström, 1990) was developed for tests in class. The test is based on the assumption that the term chosen by an individual for describing an object or a process allows conclusions about the cognitive level the individual operates on. Therefore respondents are asked to choose one of four response options, namely the one that describes the similarity relationship between two objects best. Each response option represents one of five similarity relations:

Egocentric similarity relations represent the preoperational stage. At this stage the own self is permanently in the focus of interest. All experiences are related to the self. The chosen response is a reaction to the objects in the sense of behaviour- and affect-based experiences.

This similarity is closely connected to the child's own experience and describes, for example, how something tastes or what you can do with it.

Particularity-based similarity relations focus on actual, external, concrete analogies between the two objects like having wheels or a skin. They indicate the concrete operational stage. Perceptual similarity relations which are characterized by appearance and situation (e.g. *they are white*, *you get them at a fruit shop*) also represent concrete operational thinking. The third type of similarity relations representing the concrete operational stage is the functional similarity relation. Functional similarities are based on common functions of two objects (e.g. *they nourish* or *they can fly*). Functional similarity relations between the objects are not perception-based.

Conceptual similarity relations represent formal operative thinking. These similarities are not based on concrete attributes but on super-ordinate terms. Examples for this category of responses are *vehicles*, *tools*, or *beverages*.

The test score is defined by the category of similarity relations chosen most frequently in the 15 items. If the frequency of two adjacent categories is equal, the mean of the two categories is used as test score. An intermediate score is computed if two non-adjacent categories have the same frequency.

The Likhetsrelationer 2 had an acceptable internal consistency (*Cronbach Alpha* = .81; *Guttman's split-half* = .81) in a study with 542 students from grades 2 to 11 in Sweden (Bergström, 1990). The correlations of each item with the sum of all remaining items were sufficiently high (r = .35 to .52). As would be expected of a general cognitive developmental measure, mean scores from different grades differed significantly and mean scores from girls and boys did not differ significantly. In addition, there was no significant interaction between grade and gender. In line with expectations, the percentage of students who chose responses indicating preoperational stage in most items decreased from the lowest to the

highest grades (grade 2: 16%; grade 4 and 6: 4.8%; grade 8 and 9: 4.6%; grade 11: 1%). The same pattern was found for the percentage of students who preferred concrete operational responses (grade 2: 55%; grade 4 and 6: 35%; grade 8 and 9: 17%; grade 11: 12%). In contrast, the percentage of respondents who chose more formal operational than other kinds of responses increased from grades 2 to 11 which is perfectly in line with Piaget's theory (grade 2: 29%; grade 4 and 6: 60%; grade 8 and 9: 78%; grade 11: 87%).

For the present study, the Likhetsrelationer 2 was translated from Swedish to German by a bilingual university student. Afterwards, the instruction was simplified and abbreviated. The instruction asked the respondents to tick the similarity between the two objects that fits best. For example when the two objects were "Car and bus" respondents could choose between the four response options *have wheels*, *you can drive in them*, *are vehicles*, and *you can have accidents in them*. The cognitive pretest indicated that there were no problems with this task. In the Standard Pretest, the response-format was used as intended by 15 of the 20 participants. From these, one was categorized into preoperational thinking, nine into concrete operational thinking, and five into formal operational thinking. This pattern is in line with Piaget's theory and Bergström's results. In 3rd-graders concrete operational thinking is most likely to be found but decelerations and accelerations are said to be in line with the general cognitive development. In the data-collection-1 questionnaire, the Likhetsrelationer 2 consisted of 15 pairs of concepts ("car and bus", "banana and orange", "saw and knife", "ferry and container ship", "salt and sugar", "boots and sandals", "violin and guitar", "rosehip and rose", "armchair and sofa", "farm and bungalow", "hawk and eagle", "10 cent and 5 cent", "cap and hat", "book and newspaper", and "radio and television"). Each pair was presented with four associated response options. The children were asked to choose the option that described the similarity between the two concepts best in their opinion. Page 10 contained the instructions with explanations and examples (see appendix 11.3 A and C). The

instruction contained the statement that there are differences as well as similarities between two different things in most cases. The examples “apple and pear” and “mushroom and umbrella” (with respective drawings) were used as illustrations. It was emphasized that there are several similarities between two things and all are correct in their own way. Then it was stressed that individuals typically find one similarity more fitting and important than others and that people can come to different conclusions but be all correct at the same time. With the two concepts “bun and bread” an example of the items and response options was provided. Then the main instruction informed the participants that a number of these tasks would follow and that they were expected to tick the similarity that fits best. It was stressed that they should not care what their classmates did because only their opinion was of interest. Finally it was stressed that they were allowed to choose only one of the response options. The tasks had the same form as the example given in the instruction and were located on pages 11 and 12. There were two versions of the questionnaire for the 3rd-graders: one included the Likhetsrelationer 2 and the other the socio-cognitive items. In the data-collection-2 questionnaire, the instruction was substantially abbreviated and the number of items was reduced. The Likhetsrelationer 2 was located on pages 10 and 11 (see appendix 11.3 D and E). Only the six pairs “salt and sugar”, “boots and sandals”, “violin and guitar”, “armchair and sofa”, “hawk and eagle” and “10 cent and 5 cent” were used. The new instruction stated that apple and pear were different in many ways, e.g. that the apple had a roundish shape whereas the pear had a longish shape. Then similarities were mentioned (both are edible, both have a stem, both are fruits, and both are healthy). It was emphasised that there were always several similarities between two things and that all were correct in their own way. Participants were told that on the next page they would see pairs of things and they were to tick the similarity that was most important in their opinion. They were asked to imagine they had to explain the similarity and use only one of the options – which

one would they use? The second part of the instruction was located on page 11. Respondents were asked to tick the similarity that fits best without caring about their classmates' responses. In addition, they were told that they had to decide for one response option.

According to Aboud (1988, 1993), increased cognitive abilities like understanding conservation of masses will affect prejudice if they are applied to the social domain. An important aspect of these so-called socio-cognitive developmental characteristics is the increasingly differentiated perception of groups and individuals. Prejudice is assumed to decrease if differences between groups are not perceived in a polarized way anymore. This depolarization can be seen in perceived similarities between ingroup and outgroup. SCDT assumes that children begin to realize such similarities by the age of 8 years.

One means of assessing perceived similarity between groups is the "*Same-different Board*" (Aboud, 1993; Aboud, 2003; Aboud & Fenwick, 1999). Respondents are asked to evaluate the similarity or dissimilarity of six pairs of photographs depicting members of the same or different ethnic groups. To do so, they place the photographs more or less close to each other on a board which is 60 centimetres long. Indicators are computed for perceived ingroup homogeneity and perceived outgroup homogeneity. Another approach asks respondents to rate the perceived similarity between them and members of the ethnic ingroup and outgroup (Aboud, 1977; Aboud, 1980; Aboud & Mitchell, 1977: *Similarity Board*). A more direct way asks respondents to rate the similarity between ethnic ingroup and outgroup (Augoustinos & Rosewarne, 2001). Similarly, Levy and Dweck (1999) assessed differentiation of children's evaluations in another context. They told their participants that students at another school surveyed before had shown a number of behaviours. Among these there were three neutral and six undesirable behaviours. A second study provided participants with nine reported behaviours of students at two different schools with predominantly social desirable behaviours in one school and predominantly social undesirable behaviours in the other. Then

respondents had to rate how good a number of positive and negative attributes described each of the schools. In addition, they were asked to guess how many of the students of each school had each of the respective attributes (*none*, *some*, *most*, or *all*). For an evaluation how similar or dissimilar the two schools were perceived by their respondents, Levy and Dweck asked them if they expected the students of both schools to like to play the same games, like to watch the same films, worry about the same things, and dream about the same things on a scale with the response options *not the same at all*, *partly the same*, *mostly the same*, and *totally the same*.

Another indicator for socio-cognitive development used by Aboud (2003) is multiple cross-categorisation. In these tasks a chart with four areas is presented. There is a figure in three of the areas and the figure fitting these is to be chosen for the free area from a number of alternative figures below. To solve the task correctly, children have to consider two or three attributes simultaneously (e.g. size, gender, and ethnicity). Despite the relatively low internal consistency (*Cronbach Alpha* = .51), the correlation between the multiple categorization task and prejudice was significant in Aboud's study (r = -.19). In this task, photographs of children from two relevant groups were used. To my opinion, there are several problems with this approach: Classification tasks are perceived as tasks with an objectively correct or wrong answer. Therefore, the use of real people might induce the impression that people can be categorized into certain categories like objects and that there are correct and false social categorizations. Classification tasks are also likely to be perceived as intelligence measures. This might lead to the fear to give false and "stupid" answers. As it is important that the attitude measures are answered openly and spontaneously, tasks that might give the impression that knowledge or intelligence are tested should be avoided. Therefore multiple cross-categorisation was not used in the questionnaire.

The two socio-cognitive tasks included in the questionnaire for the 5th-graders and half of the 3rd-graders in data collection 1 were designed based on SCDT (Aboud, 1988). The SCDT assumes that the cognitive level affects prejudice because it is translated into perceptions of and dealing with ethnic groups and their differences and similarities. The task meant to assess perceived intergroup similarity between children without immigration background and children with Turkish immigration background was a modified version of the task by Levy and Dweck (1999). Respondents were asked to judge the similarity between children whose grandparents came to Germany from Turkey and children whose family always has been living in Germany in the domains preferences for games and films, sorrows, and dreams. Names were used to illustrate the intergroup context and as an anchor for the terms "Turkish" and "German". These names were meant to be familiar to the children and to be associated with the intended ethnic group with a high likelihood. The homepage of the society of German language provides the most frequently chosen names in Germany for each year since 1995 (www.gfds.de/namen). Another homepage even lists the most frequently chosen names since 1890 (www.beliebte-vornamen.de). The children in the target age-group were born between 1993 and 1997. Therefore, names from the lists provided for these years were chosen. For the selection of Turkish names no rankings were available. Instead, names were chosen from a list of the most common Turkish names from an elementary school with a very high percentage of students with Turkish immigration background. In the girls' version, respondents were instructed that Sibel, Ebru, Meryam, Leyla, and Sinem were children whose grandparents came to Germany from Turkey. Sarah, Michelle, Lena, Julia, and Laura were introduced as children whose family has always been living in Germany. In the boys version the names were replaced by "Metin, Demir, Murat, Timur, and Mehmet" and "Lukas, Niklas, Marcel, Jan, and Alexander", respectively. The first item in the girls' questionnaire asked the participants if they thought that "Turkish children (i.e. Sibel, Ebru,

Meryam, Leyla, and Sinem)" and "German children (i.e. Sarah, Michelle, Lena, Julia, and Laura)" liked the same games. In the boys' version the male names were used. The remaining items did not include the names in brackets but apart from that had the same form ("like the same films?", "have the same sorrows?", and "dream of the same things?"). Response options were *completely the same*, *similar*, *not so similar*, and *completely different*. The task was located on page 10 for the 3rd-graders and on page 13 for the 5th-graders in the data-collection-1 questionnaire and on page 12 in the data-collection-2 questionnaire (see appendix 11.3).

The relation between similarity perceptions and prejudice might be affected by the perceived valance of differences (Wolf & van Dick, 2008). Perceived differences might only be problematic if they are perceived in a negative way. Intergroup differences can be perceived as threatening, problematic, and disturbing – but also as enriching, interesting and causing curiosity. A very short assessment with two items was included in the data-collection-2 questionnaire to assess a preference to interact with others that are similar or dissimilar to oneself. The two items are "I think it is exciting to get to know someone completely different than oneself." and "I like being together with people similar to me best".

Another task was meant to assess perceived homogeneity within the two groups "German children" and "Turkish children". The task also is based on the one by Levy and Dweck. The two item clusters for ingroup homogeneity and outgroup homogeneity were located on two separate pages. Respondents were asked to judge the amount of children in each ethnic group who show each of a list of attributes ("are good at school", "are pretty", "help other people", "are popular", "share with others", and "say mean things"). Evaluations about "children whose grandparents came to Germany from Turkey" were assessed on the first page, evaluations about "children whose family has always been living in Germany" on the second. The first item was: "What do you think, how many of these children are good at

school". The response options were *almost all*, *many*, *some*, and *almost none*. The task was located on pages 11 and 12 for the 3rd-graders and on pages 14 and 15 for the 5th-graders in the data-collection-1 questionnaire. The items were not included in the data-collection-2 questionnaire.

Empathic perspective taking might be an important socio-cognitive variable. Therefore, general empathic perspective taking was included in the data-collection-2 questionnaire. Children were asked to rate how they would respond to two fictive situations in which a peer was maltreated. First, respondents were asked to imagine a situation in which they perceived how others insulted a classmate or made fun of him or her. Formulations were adapted to respondents' gender. In the second situation, a classmate was excluded from a game. The task was to rate how likely they would react with each of four given possible reactions. The possible reactions were introduced in form of statements ("I am sorry for her / him.", "The others' behaviour makes me angry.", "I think the others' behaviour is nasty.", and "I think it is unfair to treat others like that"). Response options were *surely*, *probably*, *rather not*, and *surely not*. The items were on page 19 of the questionnaire (see appendix 11.3 D and E).

C) Ingroup identification

As a part of the Doll-Technique, Clark and Clark (1947) assessed ethnic self-identification with the question: "Give me the doll that looks like you". Similarly, Newman, Liss and Sherman (1983) asked their respondents to choose the child most similar to them from a number of drawings which showed children varying in eye colour, hair colour, and skin colour. The same approach has also been used with photographed members of different ethnic groups as stimulus material (Augoustinos & Rosewarne, 2001, Cramer & Anderson, 2003, Davey & Mullin, 1980, and Kowalski & Lo, 2001). Other studies only used group labels as stimuli. Children are introduced to a number of ethnic groups or categories and are asked: "What are you?" (Aboud, 1980). The same procedure was used with adolescents and

the question “Which group do you belong to?” (Kiesner, Maass, Cadinu & Vallese, 2003). A combined approach showed pictures and labels representing different ethnic groups and asked for each one: “This child is …, are you …?” (Aboud, 1977; Aboud, 1980).

In the present study, children are introduced to a series of group labels and then asked: “What are you?” Respondents were allowed to self-ascribe any group label including dual identifications like “Turkish-German”. They were not forced into given ethnic categories. Strength of ethnic ingroup identification was assessed with two items that were based on the items used by Verkuyten (2002). Verkuyten asked 10- to 12-year-olds to rate statements like “I often regret to be …”, “It is important for me to be …”, “I am glad to be …” and “I feel comfortable with being …” on a 5-point scale ranging from 1 (*No, I do not agree*.) to 5 (*Yes, I agree; Cronbach Alpha* = .71). For the use in this study, the items were translated and simplified. As a comparative value importance of gender group membership was assessed as well. In the cognitive pretest, the four children easily self-identified as German children. There were no problems of comprehension with the items focussing on importance of ingroup membership. The assessment of ethnic and gender identification was located on page 5 in the questionnaire (see appendix 11.3). The items were introduced with the statement that there are German, Turkish, Italian, and Polish children as well as children from other countries living in Germany. Respondents then were asked to write down their own self-identification into a box in answer to the question “What are you?” The self-identification question was formulated as an open question in order to make it possible for all children to self-categorize into an ethnic category without having to provide too many or too broad ethnic categories. With regard to the category chosen there were two follow-up questions asking for affective relevance and importance of this group membership. Participants were asked if they were glad to be a member of the group (response options: *very glad*, *glad, not so glad*, and *not glad at all*) and if it was important for them to be a

member of the group (response options: *very important*, *important*, *not so important*, and *not important at all*). In addition, the importance of gender group membership was included as a frame of reference.

Comparing the self-ascribed label for data collection 1 and 2 is informative with regard to the stability of self-categorization. From the 153 respondents who chose the label German at data collection 1 the vast majority, namely 143, also chose this label at data collection 2. From the remaining ten respondents who had chosen the label German at data collection 1, seven still self-labelled as German but indicated another country of birth for parents or grandparents during data collection 2; one reported being East-European, and two indicated dual or triple identities including German. Therefore it seems to make sense to use children's self-labels as an indicator of ethnic group membership.

D) Social influence factors

Children's intergroup attitudes might be affected by social impact of friends' attitudes and influence of perceived norms in the social environment. A very direct and objective way to assess friends' effect on children's attitudes was used in an intervention study by Aboud and Fenwick (1999): Children were categorized into prejudiced and tolerant individuals with a median split based on their scores in the MRA. Each child was paired with a child from the other category nominated as a good friend in class. The dyads then were instructed to talk about two statements from the MRA which had been answered in a prejudiced way by one child and in a non-prejudiced way by his or her friend. Discussions lasted two minutes. The children did not have to decide to which group the two attributes should be ascribed and they did not have to agree upon a response. After discussing the two items, the children were retested with the MRA individually. This method has a lot of advantages but it can't be used in class and it is time-consuming and slightly artificial.

A less direct approach was used by Ritchey and Fishbein (2001) who tried to predict adolescents' intergroup attitudes with the help of their best friends' attitudes. Respondents were asked to list their best friends in class and evaluate how close the relationship with these friends was (talk about personal emotions, share secrets, etc.; *Cronbach Alpha* = .86). Intergroup attitudes toward a number of different social groups were to be predicted by the two best friends' intergroup attitudes. Similarly, Kiesner, Maass, Cadinu and Vallese (2003) used mean peer group attitudes to predict respondents' evaluations of several target groups (e.g. Moroccans, French, and Jews). The peer group consisted of those classmates respondents reported regular contact with. Attitudes of these (at least three) classmates were averaged. Using the mean attitude scores of children's nominated best friends in class to predict respondents' attitudes can be used as indicator of mutual social impact.

In addition to social impact of friends' attitudes, other processes of social influence might be important. If a child experiences negative peer behaviour toward members of a certain social group every day, this might foster prejudiced attitudes. Simulation or laboratory studies provide information about children's reactions to peers' racist statements (Aboud & Fenwick, 1999). Children were instructed to imagine talking to another child and listened to a record in which another child talked about neutral topics. The record included a negative statement as well as a joke about Indian people. The joke was followed by the question if the child liked that joke. In addition, there was a laboratory study in which children believed that they talked to another participant via intercom (in fact they heard the recording). Participants' reactions to the racist statement and joke were observed and coded as *no reaction*, *question the remark*, *interrupt the remark*, *reject the remark*, or *stress the remark's undesirability*. This approach is problematic because children are exposed to racist content. In addition, it requires individual testing. In a study by Bacher (2001) vocational school students were asked how frequent negative statements about "foreigners" living in Germany

were in their vocational school, at work, and among their friends. Respondents' level of prejudice was correlated to agreement with statements like "Jokes about foreigners are frequent at work" (r = .25), "Foreigners are insulted at school." (r = .14), or "My friends like joking about foreigners" (r = .56). Response options were *totally agree*, *rather agree*, *rather not agree*, and *not agree at all*. Perceived frequency of negative peer behaviour toward certain social groups might be important in grades 4 to 6 as well. Jokes about immigrants or the exclusion of immigrant children from peer activities might provide normative information. Children might conclude from negative peer behaviour toward classmates with Turkish immigration background how these are evaluated by the ingroup and that it is acceptable to act that way.

Aboud (1993) asked respondents to guess how their best friend would respond to items taken from the MRA to assess children's perceptions of their friends' attitudes. The study showed that children assumed high similarity between the friends' attitudes and their own attitudes whereas actual similarity was much lower. In the data-collection-1 questionnaire, children were asked to answer two MRA items the way they assumed their best nominated friend in class would respond to the items. The questionnaire started with a number of sociometric questions. One referred to the three best friends in class. If the friend had answered the MRA as well and indicated his or her own sociometric number, children's assumptions about their friends' intergroup attitudes, the friends' self-reported attitudes, and the child's self-reported attitudes could be compared. Even intensive requests could not clarify if the three younger children participating in the cognitive pretest answered the two MRA items the way they assumed their best friend would answer them (as was intended) or if they described how their friend was with the help of the items. After the cognitive pretest, the introduction was modified to facilitate perspective taking in the children. In the Standard Pretest with 20 respondents there were some questions of comprehension but overall the 3rd-graders did not

seem to have difficulties with the task. One of the children skipped the items. The friends' assumed and actual answers to the MRA items corresponded in one of the two items for 30% of the children and in both items for 20% of respondents. The instructions were simplified and re-structured after the Standard Pretest once again. The instruction's purpose was to facilitate perspective taking in the children: "Surely you remember the questions with the drawings. Can you imagine how the classmate who is your best friend in class would answer these questions? Please think about the way this classmate behaves and what he or she says and does. Then answer the two questions below". The two MRA-items with the attributes nice and dishonest were used. The response options were the same as in the assessment of the children's own attitudes. The instruction for the first item was: "Some children are **nice** – they visit classmates if these are ill. **For which children is this true?** What do you think how your best friend in class would respond to this question? **Please tick the response your best friend in class would choose.**" The two items were not included in the questionnaire used at data collection 2 because there seemed to be a lot of misunderstandings.

Sociometric questions provided the chance to compare the mean attitudes self-reported by the child's nominated three best friends in class with the child's own self-reported attitudes. It was expected that the responses of close friends in the MRA and in the ratings of liking or dislike are quite similar if friends influence each others' attitudes or have similar attitudes from the start. The three nominated best friends' attitude scores were available if they filled in the dependent variables and the own sociometric number.

The perceived frequency of insults, exclusion, or jokes with Turkish immigrants (representing the largest immigrant group) as targets in class and among the respondents' friends seem to be a useful indicator of the perceived normative context in the peer group. Item formulations were based on the items by Bacher (2001). These items were simplified and focused on friends and classmates. Two of the four participants in the cognitive pretest

reported that there were no negative behaviours toward Turkish people in their class or among their friends because there were no peers with Turkish immigration background in their school or neighbourhood. One child explained that she had thought about one of her friends in class who often made jokes about Turkish people or teased Turkish girls at school ("*Da hab' ich an die … gedacht. Die macht Witze über Türken und ärgert die … und andere türkische Mädchen.*"). The question about Turkish children being excluded from an activity proved to be ambiguous. There were different interpretations who excludes the children and in which domain. One of the children reported that Turkish classmates are frequently excluded because she thought about lessons in religion ("*Ich hab' an den Religionsunterricht gedacht. Da dürfen die nicht mitmachen.*"). During the Standard Pretest there were no questions of comprehension and no obvious problems with responding. In the data-collection-1 questionnaire, perceived frequency of negative behaviour toward Turkish people shown by participants' friends was assessed on page 14 (3^{rd}-graders) or 17 (5^{th}-graders; see appendix 11.3 A to C). The items were introduced with the requests "Think about your friends. Tick what applies to them." printed in bold. Children were asked to rate the frequency of three events: "Jokes about Turkish people are made", "Turkish children are excluded", and "Turkish people are insulted". In the data-collection-2 questionnaire, the two items dealing with jokes and insults were located on page 16 (see appendix 11.3 D and E). The third one was dropped. The items focussing on negative peer behaviour in class were positioned on page 16 (3^{rd}-graders) or page 19 (5^{th}-graders) in data collection 1 (see appendix 11.3 A to C). The order of the statements was: "German and Turkish children like to sit next to each other", "Jokes about Turkish people are made", "German and Turkish children talk and play with each other", "Turkish children are excluded", and "Turkish children are insulted". The introduction was: "Think about your class. Tick what applies." In the data-collection-2 questionnaire, the two items dealing with jokes, intergroup interaction

(talking and playing), and insults were located on page 15 (see appendix 11.3 D and E). The other two items were dropped. The response options were *every day*, *every week*, *every month*, and *very seldom or never*.

E) Intergroup contact

The opportunity to have intergroup contact and the frequency of intergroup contact are important prerequisites for interethnic friendships which are the most promising form of intergroup contact according to Pettigrew (1998). The number of outgroup children available in class and social environment determines contact opportunities.

To assess frequency of intergroup contact, Kiesner, Maass, Cadinu and Vallese (2003) asked 7th- and 8th-graders how much time they spent in school and leisure time with members of each of a number of ethnic groups (e.g. Albanians, Chinese, and Jews). The response options were *never*, *seldom*, *from time to time*, and *frequently* which seem to be too abstract for elementary school children. In addition, children might get bored easily if they are asked to answer the same questions for a number of groups. Wagner and Machleit (1986) asked German 14-year-olds how often they had contact with Turkish people in several domains of life like leisure time or breaks between the lessons. Stephan and Rosenfield (1978) asked their respondents to rate how often they had contact with outgroup members in eight different domains (e.g. visited at home, invited for playing at home after school). They used the response options *frequently (more than once a week), from time to time (less than once a week),* and *never*. The concrete anchors should be very helpful especially with young respondents. The anchors ensure that all respondents interpret the terms the same way.

In addition to global frequency of contact, intergroup friendships are important as they are a close and meaningful form of contact experiences. Wagner and Machleit (1986) asked German 14-year-olds about the number of Turkish friends or relatives. This approach has the disadvantage that children might report an overly optimistic number of friends. Hraba and

Grant (1970) asked their respondents to write down the names of their friends and the ethnic group membership of each friend. Letting children write down their ingroup and outgroup friends also gives a hint to the appropriateness of their allocation of people to ethnic groups. Frances Aboud also recommended using concrete questions like “Name your German friends”, “Name your Turkish friends”, and so on. In addition, she advised to define the term “friend” in order to ensure that all respondents interpret the term in the same way. This was implemented with the lists of friends and the corresponding explanations.

In order to keep the work load as low as possible and because children easily get bored and loose motivation, only contact frequency with members of the largest immigrant group (Turkish immigrants) in school, clubs, neighbourhood, and leisure time was assessed. Concrete anchors were used to ensure comprehension and correct, unanimous interpretation of the response options (*every day*, *every week*, *every month*, and *seldom or never*). In the cognitive pretest, two children told me that there were no Turkish children in their neighbourhood, in their class, or in the clubs they were members in. In the data-collection-1 questionnaire, frequency of contact with Turkish children was assessed with three items on pages 13 (3^{rd}-graders) or 16 (5^{th}-graders) together with the friendship lists (see appendix 11.3 A to C). The two items referring to contact in neighbourhood and leisure time were combined because of the overlap between both domains and children’s problems with the term leisure time. Following the request “Tick what applies to you”, children were asked how often they talk or play with Turkish children at school, in clubs, and in the afternoon. In the data-collection-2 questionnaire, frequency of contact was assessed with two items on page 16 (see appendix 11.3 D and E). The club-item was dropped because of its ambiguity. Children might not have contact at clubs because they are not members of any clubs, because there are no Turkish members, or because they do not interact with the Turkish members.

Friendship lists were used to assess direct contact in the sense of intergroup friendships. Respondents were asked to list their friends who had no immigration background, a Turkish immigration background, and another immigration background in separate lists. The respondents in the cognitive pretest were asked about their German friends first. There was no hint to the following questions about Turkish and other immigrant friends. Therefore one child listed a Turkish friend in the first list as well (“*Oh, die … habe ich jetzt schon da oben hingeschrieben! Was mache ich denn jetzt?!*”). In order to avoid confusion and categorisation errors, it seemed to be important to introduce all friendship lists in a common introduction. The questions about the children’s friends from different cultural backgrounds were introduced with a common introduction in the Standard Pretest. The children were asked to write down the given names of their best friends first for friends with Turkish background, then for those with other immigration backgrounds (e.g. Greek or Czech), and finally those friends with German background. Most of the children answered these three questions without any obvious problems. A few realized that they had noted their German friends in answer to the second question when they came to the third list. Only one of the children seemed to have miscategorised a child into a group of origin that did not match the name. The lists of friends were placed on pages 13 (3rd-graders) or 16 (5th-graders) in the data-collection-1 questionnaires and on page 17 in the data-collection-2 questionnaire (see appendix 11.3). There were no changes in the formulations between the two data collections. The assessment of inter- and intragroup friends began with a general instruction: “Some children have friends whose family is from another country. For example, some children have friends whose family came from Turkey, Italy, or Poland to Germany. Do you have friends like that as well?” Then respondents were requested to list their Turkish friends: “Do you have friends **whose family came from Turkey**? Write down their given names.” Next, the children were asked about their other immigrant friends: “Do you have friends **whose**

family came from another country, for example Greece or Czechia? Write down their given names." Finally participants were asked to write down their German friends: "Do you have friends **whose family is from Germany**, too? Write down their given names." Names that were obviously listed in the wrong category were not counted as friends in this category. In the data-collection-1 data, 153 respondents apparently listed all friends in the correct list, 17 respondents apparently mis-listed one or more friends. In the data-collection-2 data, there were no friends that were obviously listed in the wrong category.

On the third page of the questionnaire children were asked to indicate their three best friends in class by noting the number next to the friends' name on the blackboard (see appendix 11.3). There was no ranking of the complete class due to the limited time available for the questionnaire and to keep the workload low for the children. In addition, the best friends should be more important to the children and have more impact on their attitudes than a friend listed as number 10 or 16. The instruction was: "Who are your friends in class? That means whom do you meet most frequently after school? Please indicate the respective number." There were boxes to fill in the numbers and sentences enclosing the three boxes like "My best friend is number …". The respondents were asked to note their own sociometric number as well. This allows for checking the ethnic group membership of respondents' nominated friends. The lists were only on the blackboard during data collection. Therefore, anonymity was ensured because the numbers did not give away respondents' identity.

In order to assess indirect contact, Wright et al. asked college students how many members of their own ethnic group they knew who had friends in a certain ethnic outgroup (Wright, Aron, McLaughlin-Volpe & Ropp, 1997). In the questionnaire used in the cognitive pretest, respondents were asked how many people from their own group they knew who had Turkish friends. A similar item referred to indirect contact with other immigrant groups. The

response options were illustrated by a respective number of stick-figures. Two of the respondents misunderstood the items. They assumed that the question was about their own immigrant friends ("*Da habe ich an die … gedacht.*", "*Ich kenn' jemanden! Mich!*"). The task was reformulated for the Standard Pretest in order to clarify that the number of their acquaintances with at least one outgroup friend was of interest. In the Standard Pretest there were no questions of comprehension and no hints to misunderstandings. In the data-collection-1 questionnaire, the items meant to assess indirect contact were placed on pages 14 (3rd-graders) or 17 (5th-graders; see appendix 11.3 A to C). The instruction was: "Please think about your friends, your classmates, and your family. How many people (excluding you) do you know who have Turkish friends? Tick what applies." Acquaintances with Turkish friends were assessed first followed by acquaintances "whose friends are from another country like Italy or Poland". The response options were *more than three*, *three*, *two*, *one*, and *none*. They were illustrated by the respective number of little schematic human figures. This task was not included in the data-collection-2 questionnaire because there still seemed to be many misunderstandings in this task.

An objective measure of indirect contact could be derived from the sociometric questions referring to the three best friends in class: The actual number of Turkish and other immigrant friends listed by the three classmates nominated as best friends was used. This was possible if the nominated classmates took part in the study as well, noted their own sociometric number, and filled in the friendship lists.

F) Socio-demographic measures

A number of socio-demographic questions assessed age, gender, and country of origin. The socio-demographic questions were located on page 17 (3rd-grade) or 20 (5th-grade) in the data-collection-1 questionnaire and on page 14 in the data-collection-2 questionnaire (see appendix 11.3). Participants were asked to write down their age in years into a box in

response to the question: “How old are you?” They also had to tick if they were *a boy* or *a girl*. Then they were asked to indicate in which country they were born. Available options were *Germany*, *Turkey*, *Italy*, *Poland*, *Russia*, and *another country, namely* (with a box to note the country). As it was assumed that having an immigration background affects intergroup attitudes, a number of questions were meant to indicate if respondents had an immigration background or not: They were asked if their parents or grandparents had come to Germany from another country. The first response option was *no*. The second response option (*yes*) was linked to a box with the additional question from which country the parents or grandparents had come to Germany. Response options were *Turkey*, *Italy*, *Poland*, *Russia*, and *another county, namely* (again with a box to write down the country’s name). Two additional questions assessed the language(s) spoken among friends and in the family. Response options were *German*, *Turkish*, *Polish*, *Russian*, *another language, namely*, and *German **and** another language, namely*.

G) Code

One of the most important aspects of the questionnaire was the code based on which children’s responses from both data collections could be matched without giving away their identity. It was located on the last page in the data-collection-1 questionnaire and on page 13 in the data-collection-2 questionnaire (see appendix 11.3). First, children were provided with an explanation why the code was needed. During data collection one, children were told that they would be surveyed again in the following year and that it would be necessary to match their answers from both years. During data collection 2, respondents were reminded that they already had been surveyed the year before and that their responses from the two years would be compared. They were asked to provide five letters as their personal sign consisting of the first three letters of their mother’s given name and the first two letters of their own month of birth. This was explained with an example in the questionnaire and on the board.

H) Sociometric choices

Sociometric choices focus on concrete, well-known people. Dollase (2002) asked elementary school children which classmates they liked and disliked. Due to data protection issues, the names of the children in class were written down on the blackboard with a number beside each name (Dollase, Ridder, Bieler, Köhnemann & Woitowitz, 2000a). Respondents were asked to write down the number of the respective classmate instead of the name. A similar approach was used by Avci-Werning (2004) who asked children to write down their three best friends and list any number of children they would like to invite for their birthday. In addition, she gave them a list with their classmates' names and the children's task was to evaluate how much they liked each of the children. Davey and Mullin (1980) asked students which two children in class they would prefer as desk-mates, with which two children in school they would prefer to play on the playground, or which two children from school they would want to invite home. The disadvantage of asking for a fixed number of classmates is that the two or three very best friends might be from the ethnic ingroup and that the amount of intergroup friendships might therefore be underestimated. This can be avoided by asking the respondents to bring all their classmates into a ranking from most to least preferred (Wagner, van Dick, Petzel, & Auernheimer, 2001). The additional advantage is that this method provides information about all children in class. Wagner et al. instructed the school students to answer questions (e.g. about their preferred desk-mates) by noting the classmates' numbers beginning with the most preferred and ending with the least preferred. In each class, students' names were written on the blackboard together with numbers.

As sociometric measures are only one part of the questionnaire in this study, asking students to rank all their classmates seemed to be too time-consuming and too exhausting for the children. This makes mistakes and motivation loss more likely and might pose problems for the other items in the questionnaire. Therefore, only the five most and least preferred desk-

mates were assessed in the questionnaire. Numbers were used instead of names to ensure respondents' anonymity. The children were asked about their own number on the blackboard, too, to allow for checking mutuality or one-sidedness of choices and to relate the choices to ethnicity and gender. In the Standard Pretest, the respondents seemed to enjoy filling in the sociometric questions. A number of them reported that the teacher had placed them next to a classmate they did not really like. The sociometric choices were located at the beginning of the questionnaire (pages 2 and 3) and were not modified between the two data collections (see appendix 11.3). The request "Do not choose your own number" was added because some children had noted their own number in the Standard Pretest. Positive choices of desk-mates were assessed with the instruction: "Next to whom would you like to sit in class? Please indicate the five classmates you would like to sit next to in class most. Use the numbers on the blackboard. Do not nominate yourself!" There were five boxes in which respondents could note the numbers next to the respective classmates' name on the blackboard. As a reminder the boxes were enclosed by sentences like "I would like to sit next to number … most." The negative choices were introduced by the question "Next to whom would you rather not like to sit in class".

I) Social relations in class

In order to get an impression how harmonious or conflict-laden the relations between students enrolled in grades 3 to 6 are in general, an item block assessing the quality of social relations in class was included. These items were included because the teachers were interested in learning about their students' perceptions of social relations in class.

Questions if students' best friends were from their class, how much fun they have with their classmates, if the students of their class stick together against others, and how good social cohesion in class is have been used successfully to get a first impression of the interpersonal relations in class (Ridder & Dollase, 1999). Similar items were used in the pretests. The four

children in the cognitive pretest answered the items referring to social relations in class without any problems of comprehension. One of them reported that she had thought about the goings-on in her class to choose a response option ("*Ich hab' daran gedacht, wie sie in meiner Klasse miteinander umgehen.*"). In the Standard Pretest, none of the 3rd-graders seemed to have difficulties with answering the items. In the final version of the questionnaire, the instruction in bold print was: "Describe your class". The four items described possible situations in class and respondents were asked to describe how often these occurred. The situations were: all children stick together in class, children in class start brawls, I feel comfortable in class, and another child insults me. Response options were *every day*, *every week*, *every month*, and *very seldom or never*. In the data-collection-1 questionnaire, the items were located on pages 16 (3rd-graders) or 19 (5th-graders; see appendix 11.3 A to C). In the data-collection-2 questionnaire, the items were located on page 15 (see appendix 11.3 D and E). The item describing fights in class was dropped because it caused unease in some of the teachers.

J) Importance of others' ethnic group membership

One can not take for granted that elementary school children are able to categorise classmates into the respective group of origin or that group of origin is important in their daily lives. During data collection 1, an elementary school teacher assumed that it was too difficult for her 3rd-graders to nominate their friends separately according to ethnic group membership. Some other teachers thought that elementary school children do not know who has an immigration background in their class or which nationality their classmates have. On the one hand, a considerable number of participants asked their classmates were they came from or which nationality they had and some seemed to confuse language, religion, country of origin, and federal state. On the other hand, it seems that only very few mistakes were made in listing the best friends according to their ethnic group membership. Most of the

names listed seemed completely plausible and fitting. In addition, the perceived ethnic membership might be more important for intergroup attitudes and interactions than the actual one.

Knowledge about and salience of ethnic group membership should be important for the effectiveness of intergroup contact and the behavioural relevance of intergroup attitudes. Two questions are important: Are the children aware that people can be categorised into social groups and that country of origin is one possible criterion for categorization? Is others' membership in a certain group of origin relevant and important to children?

Different measures have been used in empirical research with children to assess awareness of ethnic categories. Clark and Clark (1947) asked children to show them the person that belonged to a named ethnic category. To assume ethnic awareness in children they should choose correctly in more cases than would be expected by chance. Categorisation tasks directly assess children's ability and tendency to group people into categories according to certain criteria. Children are given several photographs and are asked to put those together on one pile that belong together or have something in common (Davey, 1983). The first criterion used by the child is assumed to have the highest importance and salience to the child. To find out the criterion with the second highest importance, children can be encouraged to sort one of the piles again. If ethnic group-membership is not used as a criterion for categorisation, it might be a social dimension of low relevance or children may not even be aware of it. If ethnic group membership is used, the fact if it is used as first, second, third, or later used criterion shows its relevance relative to other criteria. Asking respondents to evaluate the similarity or dissimilarity between depicted people focuses on awareness for and attention to ethnic differences. Ethnic awareness is deduced from perceptions of larger differences between than within the groups (Aboud & Mitchell, 1977).

The problem with this approach is that being aware of distinguishable social groups is confounded with evaluations of perceived differences and similarities.

As these methods are hard to integrate into a questionnaire, three items were formulated in order to assess children's (self-reported) knowledge about classmates' ethnic group-membership and the importance of classmates' ethnic group membership in daily life (page 18, see appendix 11.3 D and E). First, children were asked to indicate if they knew which country their classmates' families come from (response options: *yes, for all of them*; *for most of them*; *for some of them*; and *no, for none of them*). Then respondents were asked if they talked about others' country of origin with their friends (response options: *every day*, *every week*, *every month*, and *very seldom or never)*. The last question deals with the importance of others' country of origin for the child (response options: *very important*, *important*, *not so important*, and *not important at all*).

K) General instructions and comments

The first page of the questionnaire contained the general instructions (see appendix 11.3). Respondents were told that the questionnaire was about their thoughts and experiences. It was stressed that it was not a class test, that there were no correct or wrong answers, and there would be no marks. Children were asked to ignore what their classmates were doing because only their own thoughts were important in the questionnaire. Finally, it was emphasized that they should not put their name on the questionnaire. In addition, a drawing of a boy or a girl was on the page with a speech bubble saying: "Hello! It's great that you participate!" There were only minor changes in the general instructions in the data-collection-2 questionnaire: The words "As a reminder" were added and the text in the speech bubble was: "Hello! It's great that you participate again!"

During data collections 1 and 2, most of the respondents worked quietly and seemed to be concentrated, interested and motivated. There were a number of questions of comprehension

but most children just wanted to be sure if they had interpreted the question correctly (which typically was the case). Affirmation that they had understood it correctly or additional explanations if they had not were sufficient to solve these problems. Most questions were about formal aspects and children just wanted to be assured that they understood the response format correctly. The request to note the own number in the sociometric choices resulted in suspicions regarding anonymity. But typically, participants were convinced by the hint that there was no copy of the list of names on the blackboard and nobody would know which number represented which child. Other comments and discussions were rare. In some of the classes, participants became restless and noisy at the end of the lesson and complained about the number of pages.

Most difficulties emerged with the indirect contact items. The misunderstanding that the question dealt with their number of immigrant friends was very common. Some of the terms used in the Likhetsrelationer 2 had to be explained (e.g. dogrose, ferry, hawk, and mass media). With regard to the MRA attributes not all children interpreted them as was intended: a boy remarked that being very nice was not a good trait because it meant to be a bootlicker (“*Wenn jemand sehr nett ist, dann schleimt der doch. Das ist doch nicht gut.*”). A number of respondents asked their classmates which ethnic group they belonged. With regard to the code, a substantial number of respondents were confused if they were supposed to use the letters of their own or their mother’s birthday. Some children were insecure about the spelling of their mother’s name or confused because the mother had two names. There were also some questions during the sociometric choices. Students were pleased when they were allowed to skip boxes or add more boxes in the sociometric choices because some had fewer or more most and least preferred desk-mates or friends in class than were requested. A boy and a girl in different classes asked if the negative choices would be shown to the classmates before they nominated the least preferred neighbours in class (“*Sieht das jemand, was ich*

hier hinschreibe?", "*Wird das in der Klasse gezeigt, wenn ich hier etwas hinschreibe?*"). At school 4, one boy reported that the teacher had banned jokes about Turkish people and insults toward Turkish classmates. A student at school 5 reported that her Turkish classmates only played with each other and not with other classmates. During data collection 2, a girl complained that the liking items were difficult to answer because you could either be unjust toward the nice members of a group by indicating to like the group not that much or do a favour to the mean members of a group by indicating to like the group. At school 7, a boy remarked that the similarity between German and Turkish children depended on the time the Turkish children were living in Germany because they would become more and more similar to German children ("*Das kommt doch darauf an, wie lange die Kinder schon hier leben! Die türkischen Kinder kennen ganz andere Spiele als wir. Aber wenn die türkischen Kinder ein Jahr oder so in Deutschland leben, dann haben die sich an unsere Spiele gewöhnt. Dann sind die genau gleich!*").

At school 1, the data-collection-1 questionnaire was read to the students in the planned order of items. Unfortunately, the questionnaire proved to be too long for one lesson. That is why some items were dropped and the order of items was modified in a way that more important questions were asked before the less important ones and open questions (friendship lists) were asked at the end. The new item order started with sociometric choices, liking items, self-identification, MRA and (social-) cognitive tasks as before. Then the code was filled in followed by the demographic items, the items referring to specific and general experiences in class, indirect contact, and specific experiences among friends. The friendship lists followed the two items about frequency of contact with Turkish children. Some of the children did not find the time to fill in the friendship lists or were not motivated to do so. During data collection 2, the two 3rd-grade classes at school 2 had been split into three classes since data

collection one and the four class representatives of the two 6th-grade classes had to take part in a conflict mediator training during the surveying.

The versions for female and male respondents differed in formulations as far as gender-related instead of gender-neutral formulations were used, in the drawings used in the MRA, and in the names used in the intergroup-similarity items.

11.2 Results of the pretests

A) Pretest of the MRA material

Head-to-shoulder drawings were used as illustration and reminder for the MRA categories. The drawings were designed in a way that their expression was neutral to prevent that the drawings triggered positive or negative emotions. Drawings have the advantage that they might be accepted as illustrations of a category whereas photographs might bear the risk that individual attributes of the depicted children might have a strong impact on the evaluation of the category. In addition, photographed children might be more likely perceived as unique individuals. In the drawings hair style, clothing, facial expression, and orientation relative to the viewer could be done as similar as possible for all children drawn.

A pretest with 3rd- and 4th-graders of an elementary school was meant to ensure that the drawings were representing the intended ethnic membership and that the trait ascription was not affected by differences in perceived attractiveness. Participants evaluated the drawings with regard to their attractiveness and assumed country of origin. The 18 drawings depicting boys were rated by 24 boys, the 18 drawings depicting girls were rated by 23 girls. The aim was to select drawings that were clearly categorised as German or Turkish and that were of medium attractiveness. Children evaluated those drawings more positively that were labelled as “German” by the majority of the children than those that were labelled as “Turkish”. Unfortunately, it was not possible to select moderately attractive drawings with comparable attractiveness scores for the two groups. Therefore, four drawings with comparable evaluations were chosen for each of the two groups which were similar in posture, expression, and hairstyle. Most of the selected drawings were categorized into the intended category or at least not into the opposite category by the majority of the respondents.

Table5. Evaluations of the drawings for the MRA with regard to attractiveness and assumed country of origin (pretest with 24 boys rating boy-drawings and 23 girls rating girl-drawings).

Boys	Evaluation	Girls	Evaluation
	Mean attractiveness: 2.9 "**German child**": 65% "Turkish child": 4% "Italian / Russian child": 30%		Mean attractiveness: 2.6 "**German child**": 68% "Turkish child": 5% "Italian / Russian child": 27%
	Mean attractiveness: 2.4 "**German child**": 43% "Turkish child": 22% "Italian / Russian child": 35%		Mean attractiveness: 2.6 "**German child**": 35% "Turkish child": 9% "Italian / Russian child": 57%
	Mean attractiveness: 2.7 "**German child**": 44% "Turkish child": 4% "Italian / Russian child": 52%		Mean attractiveness: 2.9 "**German child**": 48% "Turkish child": 13% "Italian / Russian child": 39%
	Mean attractiveness: 2.7 "**German child**": 43% "Turkish child": 17% "Italian / Russian child": 39%		Mean attractiveness: 2.9 "**German child**": 39% "Turkish child": 9% "Italian / Russian child": 52%

Note. Attractiveness was rated on a scale with the response options 1 (*not pretty at all*), 2 (*not so pretty*), 3 (*pretty*), and 4 (*very pretty*). Those drawings that were chosen for the MRA are marked with grey shading.

Table 5 (continued). Evaluations of the drawings for the MRA with regard to attractiveness and assumed country of origin (pretest with 24 boys rating boy-drawings and 23 girls rating girl-drawings).

Boys	Evaluation	Girls	Evaluation
	Mean attractiveness: 2.7 "German child": 39% "**Turkish child**": 26% "Italian / Russian child": 30%		Mean attractiveness: 2.7 "German child": 26% "**Turkish child**": 35% "Italian / Russian child": 39%
	Mean attractiveness: 2.4 "German child": 30% "**Turkish child**": 43% "Italian / Russian child": 26%		Mean attractiveness: 1.8 "German child": 17% "**Turkish child**": 22% "Italian / Russian child": 61%
	Mean attractiveness: 2.4 "German child": 30% "**Turkish child**": 26% "Italian / Russian child": 39%		Mean attractiveness: 3.3 "German child": 52% "**Turkish child**": 26% "Italian / Russian child": 22%
	Mean attractiveness: 2.1 "German child": 13% "**Turkish child**": 48% "Italian / Russian child": 39%		Mean attractiveness: 2.0 "German child": 22% "**Turkish child**": 30% "Italian / Russian child": 48%

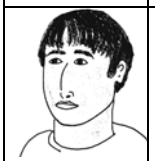
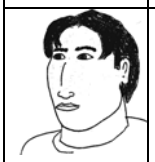
Note. Attractiveness was rated on a scale with the response options 1 (*not pretty at all*), 2 (*not so pretty*), 3 (*pretty*), and 4 (*very pretty*). Those drawings that were chosen for the MRA are marked with grey shading.

Table 5 (continued). Evaluations of the drawings for the MRA with regard to attractiveness and assumed country of origin (pretest with 24 boys rating boy-drawings and 23 girls rating girl-drawings).

Boys	Evaluation	Girls	Evaluation
	Mean attractiveness: 2.6 "German child": 48% "Turkish child": 4% "Italian / Russian child": 48%		Mean attractiveness: 1.9 "German child": 22% "Turkish child": 22% "Italian / Russian child": 57%
	Mean attractiveness: 1.7 "German child": 13% "Turkish child": 35% "Italian / Russian child": 30%		Mean attractiveness: 1.7 "German child": 26% "Turkish child": 35% "Italian / Russian child": 39%
	Mean attractiveness: 3.4 "German child": 78% "Turkish child": 4% "Italian / Russian child": 17%		Mean attractiveness: 2.2 "German child": 39% "Turkish child": 30% "Italian / Russian child": 30%
	Mean attractiveness: 2.8 "German child": 65% "Turkish child": 4% "Italian / Russian child": 30%		Mean attractiveness: 3.2 "German child": 52% "Turkish child": 9% "Italian / Russian child": 39%

Note. Attractiveness was rated on a scale with the response options 1 (*not pretty at all*), 2 (*not so pretty*), 3 (*pretty*), and 4 (*very pretty*). Those drawings that were chosen for the MRA are marked with grey shading.

Table 5 (continued). Evaluations of the drawings for the MRA with regard to attractiveness and assumed country of origin (pretest with 24 boys rating boy-drawings and 23 girls rating girl-drawings).

Boys	Evaluation	Girls	Evaluation
	Mean attractiveness: 2.5 "German child": 44% "Turkish child": 26% "Italian / Russian child": 30%		Mean attractiveness: 1.7 "German child": 17% "Turkish child": 39% "Italian / Russian child": 43%
	Mean attractiveness: 2.6 "German child": 59% "Turkish child": 5% "Italian / Russian child": 36%		Mean attractiveness: 2.3 "German child": 22% "Turkish child": 35% "Italian / Russian child": 43%
	Mean attractiveness: 1.8 "German child": 9% "Turkish child": 68% "Italian / Russian child": 23%		Mean attractiveness: 3.6 "German child": 70% "Turkish child": 9% "Italian / Russian child": 22%
	Mean attractiveness: 1.6 "German child": 17% "Turkish child": 35% "Italian / Russian child": 48%		Mean attractiveness: 2.1 "German child": 17% "Turkish child": 35% "Italian / Russian child": 48%

Note. Attractiveness was rated on a scale including the response options 4 (*very pretty*), 3 (*pretty*), 2 (*not so pretty*), and 1 (*not pretty at all*). Those drawings that were chosen for the MRA are marked with grey shading.

Table 5 (continued). Evaluations of the drawings for the MRA with regard to attractiveness and assumed country of origin (pretest with 24 boys rating boy-drawings and 23 girls rating girl-drawings).

Boys	Evaluation	Girls	Evaluation
	Mean attractiveness: 3.0 "German child": 50% "Turkish child": 5% "Italian / Russian child": 45%		Mean attractiveness: 2.4 "German child": 17% "Turkish child": 39% "Italian / Russian child": 43%
	Mean attractiveness: 2.0 "German child": 13% "Turkish child": 65% "Italian / Russian child": 22%		Mean attractiveness: 1.8 "German child": 9% "Turkish child": 48% "Italian / Russian child": 43%

Note. Attractiveness was rated on a scale including the response options 4 (*very pretty*), 3 (*pretty*), 2 (*not so pretty*), and 1 (*not pretty at all*). Those drawings that were chosen for the MRA are marked with grey shading.

B) Standard Pretest

Table 6. Means, standard deviations, and range from the Standard Pretest with students without immigration background enrolled in grade 3 (*N* = 20).

	Mean	*SD*	Range
Dislike of Germans	1.26	0.45	1 to 2
Dislike of German girls	1.65	0.96	1 to 4
Dislike of German boys	1.85	0.99	1 to 4
Dislike of Turkish immigrants	2.85	0.88	1 to 4
Dislike of Turkish girls	2.68	1.11	1 to 4
Dislike of Turkish boys	3.25	0.91	1 to 4
Dislike of Italian immigrants	1.74	0.81	1 to 3
Dislike of Russian immigrants	3.10	0.97	1 to 4
Dislike of people immigrating	2.35	0.75	1 to 4
Dislike of people speaking g another language	2.55	1.05	1 to 4
Affective ethnic identification	3.2	0.47	1 to 2
Importance of ethnic ingroup	4.0	0.69	1 to 3
Importance of gender ingroup	4.0	0.88	1 to 4
Descriptive norm (friends: jokes)	3.4	1.0	1 to 4
Descriptive norm (friends: exclusion)	3.5	1.0	1 to 4
Descriptive norm (friends: insults)	3.3	1.2	1 to 4
Descriptive norm (friends: cooperation)	2.9	1.2	1 to 4

Note. Response options from 1 (*like very much*) to 4 (*do not like at all*) for the ratings of dislike, from 1 (*not glad at all* / *not important at all*) to 4 (*very glad* / *very important*) for identification, and from 1 (*every day*) to 4 (*very seldom or never*) for descriptive norm, contact, and social relations in class.

Table 6 (continued). Means, standard deviations, and range from the Standard Pretest with students without immigration background enrolled in grade 3 (N = 20).

	Mean	*SD*	Range
Descriptive norm (class: jokes)	3.3	1.0	1 to 4
Descriptive norm (class: exclusion)	3.4	0.8	1 to 4
Descriptive norm (class: insults)	3.3	1.0	1 to 4
Descriptive norm (class: cooperation)	2.3	1.3	1 to 4
Contact at school	3.20	1.32	1 to 4
Contact in the neighbourhood	4	0	4 to 4
Contact in the leisure time	4	0	4 to 4
Contact in clubs	3.95	0.22	3 to 4
Number of Turkish friends listed	1.00	1.45	0 to 4
Number of other immigrant friends listed	0.63	1.34	0 to 5
Number of German friends listed	7.18	4.36	1 to 18
Social relations in class (stick together)	1.6	1.1	1 to 4
Social relations in class (brawls)	2.0	1.1	1 to 4
Social relations in class (feel comfortable)	1.6	1.1	1 to 4

Note. Response options from 1 (*like very much*) to 4 (*do not like at all*) for the ratings of dislike, from 1 (*not glad at all* / *not important at all*) to 4 (*very glad* / *very important*) for identification, and from 1 (*every day*) to 4 (*very seldom or never*) for descriptive norm, contact, and social relations in class.

Table 7. Number of positive and negative attributes ascribed to none, one, or both of the ethnic groups in the pretest (3rd-graders without immigration background, $N = 20$).

Number of children ascribing the respective number of attributes		Number of allocated attributes 0	1	2	3
Positive attributes allocated to…	German children	5	7	4	4
	Turkish children	17	3	0	0
	All children	5	6	4	5
	None of the children	20	0	0	0
Negative attributes allocated to…	German children	19	1	0	0
	Turkish children	5	4	3	8
	All children	11	3	3	3
	None of the children	18	0	1	1

11.3 The different versions of the questionnaire

A) General cognitive version of the data-collection-1 questionnaire for grade 3 (girls' version)

Fragebogen

In diesem Fragebogen geht es darum, was du denkst und erlebt hast.

Dies ist keine Klassenarbeit.

Es gibt keine richtigen oder falschen Antworten.

Es gibt keine Noten.

Bitte schau nicht, was andere machen.

Nur das, was **du** denkst ist jetzt wichtig!

Schreibe nirgendwo deinen Namen hin.

Auf der Liste an der Tafel siehst du, dass jedes Kind aus deiner Klasse eine Nummer hat.

Neben wem möchtest du im Unterricht gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am liebsten sitzen möchtest. Verwende dazu die Nummern an der Tafel. Wähle nicht dich selbst!

1. Am liebsten möchte ich neben Nummer ☐ sitzen.
2. Am zweitliebsten möchte ich neben Nummer ☐ sitzen.
3. Am drittliebsten möchte ich neben Nummer ☐ sitzen.
4. Am viertliebsten möchte ich neben Nummer ☐ sitzen.
5. Am fünftliebsten möchte ich neben Nummer ☐ sitzen.

Neben wem möchtest du im Unterricht nicht so gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am wenigsten gern sitzen möchtest. Verwende wieder die Nummern an der Tafel. Wähle nicht dich selbst!

1. Am wenigsten gern möchte ich neben Nummer ☐ sitzen.
2. Am zweitwenigsten möchte ich neben Nummer ☐ sitzen.
3. Am drittwenigsten möchte ich neben Nummer ☐ sitzen.
4. Am viertwenigsten möchte ich neben Nummer ☐ sitzen.
5. Am fünftwenigsten möchte ich neben Nummer ☐ sitzen.

Mit wem in deiner Klasse bist du befreundet?

Das heißt, mit wem triffst du dich am häufigsten nach der Schule? Gib bitte die Nummern an.

Am besten bin ich mit Nummer ☐ befreundet.

Am zweitbesten bin ich mit Nummer ☐ befreundet.

Am drittbesten bin ich mit Nummer ☐ befreundet.

Ich selbst bin Nummer ☐ .

In Deutschland leben neben Menschen, deren Familie schon immer in Deutschland gelebt hat, auch Menschen, deren Familie vor Jahren aus einem anderen Land (z.B. aus der Türkei oder Polen) nach Deutschland gekommen ist.

Bewerte bitte die folgenden Gruppen von Menschen, die in Deutschland leben.

Falls du aus manchen Gruppen niemanden kennst, bewerte die Gruppe trotzdem, so wie du denkst, dass sie sind! Kreuze die Gesichter an, die deiner Bewertung am besten entsprechen. **Kreuze in jedem Kasten nur ein Gesicht an.**

Deutsche mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Kreuze wieder in jedem Kasten <u>das</u> Gesicht an, das dazu passt, was du denkst:

Türkische Menschen in Deutschland mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Türkische Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Türkische Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Italienische Menschen in Deutschland mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Russische Menschen in Deutschland mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Menschen, die aus einem anderen Land nach Deutschland kommen, mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Menschen, die eine andere Sprache als ich sprechen, mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Es gibt in Deutschland deutsche, türkische, italienische, polnische Kinder und Kinder aus anderen Ländern.

Was bist du? Schreibe es auf: ☐

Bist du froh, dass dies so ist?

☐ sehr froh ☐ froh ☐ nicht so froh ☐ gar nicht froh

Wie wichtig ist dir das?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Wie wichtig ist es dir, dass du ein Mädchen bist?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Dies ist eine Gruppe von Kindern, deren Familie aus Deutschland kommt:

Dies ist eine Gruppe von Kindern, deren Familie vor Jahren aus der Türkei nach Deutschland gekommen ist:

Gleich kommen einige Beschreibungen dazu, wie jemand sein kann. Du sollst jeweils ankreuzen, auf wen die Beschreibung passt. Außerdem sollst du ankreuzen, wie es dir gefällt, wenn jemand so ist.

Beispiel: Eine Schülerin kreuzt folgendes an:

Manche Kinder **sind Naschkatzen** – sie lieben Schokolade und Bonbons. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	~~Auf die „deutschen“ **und** auf die „türkischen“ Kinder.~~	Auf keine der beiden Gruppen.

Die Schülerin denkt also, dass sowohl die Kinder mit Familien aus Deutschland als auch die Kinder, deren Familie aus der Türkei nach Deutschland gekommen ist, gerne Schokolade und Bonbons mögen. Außerdem kreuzt die Schülerin an:

Wenn jemand **eine Naschkatze** ist, wie findest du das?

Sehr gut gut nicht so gut schlecht

Das heißt, dass die Schülerin es sehr gut findet, wenn jemand Süßigkeiten liebt.

Jetzt bist du selbst an der Reihe. Bitte kreuze bei jeder der Beschreibungen auf den nächsten Seiten das an, was du denkst.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **nett** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unehrlich** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Manche Kinder sind **gemein** – sie beschimpfen oder schlagen andere Kinder.

Was meinst du, auf wen trifft dies zu? Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **gemein** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **ordentlich** – sie räumen immer ihre Sachen und ihr Zimmer auf. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ordentlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **unfreundlich** – sie schubsen andere herum und geraten mit anderen in Streit. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unfreundlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **ehrlich** – sie halten, was sie versprechen und sagen nichts, was nicht stimmt. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ehrlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Vergleiche einen Apfel mit einer Birne!

Du siehst, dass sie recht verschieden sind. Aber sie ähneln sich auch in vielen Beziehungen. So ist es mit vielen Dingen.

Nimm z.B. einen Pilz und einen Regenschirm.

Auf welche Art und Weise findest du, dass sie sich ähneln?

Dinge können auf verschiedene Art und Weise ähnlich sein. Man kann nicht sagen, dass nur eine Ähnlichkeit die einzig richtige ist! Es gibt viele verschiedene Ähnlichkeiten und alle sind richtig auf ihre Art und Weise.

Wenn man nun verschiedene Möglichkeiten zur Auswahl hat, findet man meistens eine passender oder besser als die anderen. In dieser Beziehung denken Personen sehr unterschiedlich. Aber alle können Recht haben, da ja alle Ähnlichkeiten richtig sind!

Jetzt kommt Beispiel: Du sollst sagen, welche Ähnlichkeit am besten passt bei einem Brötchen und einem Brot.

Hier sind einige Ähnlichkeiten aufgeschrieben, zwischen denen du wählen sollst. Kreuze die Ähnlichkeit an, von der du meinst, dass sie am besten passt:

kann man essen	sind Backwaren	beinhalten Hefe	schmecken lecker mit Butter drauf

Auf der nächsten Seite kommen eine Reihe solcher Aufgaben.

Kreuze immer <u>die</u> Gemeinsamkeit an, die am besten passt!

Kümmere dich nicht darum, was Deine Klassenkameraden wählen!

Mach es so, wie es **dir** richtig scheint!

Kreuze bei jeder Aufgabe nur <u>eine</u> Gemeinsamkeit an.

Kreuze <u>die</u> Gemeinsamkeit an, die am besten passt.

Auto und Bus:

haben Räder	darin kann man fahren	sind Fahrzeuge	damit kann man Unfälle bauen

Banane und Orange:

schmecken gut	haben Schale	sind Früchte	kann man essen

Säge und Messer:

sind Werkzeuge	daran kann man sich verletzen	sind scharf	damit kann man zerteilen

Fähre und Lastboot:

gibt es auf dem See	transportieren	man kann davon seekrank werden	sind Fahrzeuge

Salz und Zucker:

sind weiß	verwendet man im Essen	sind Gewürze	kann man leicht verwechseln

Stiefel und Sandalen:

gibt es in vielen Größen	schützen die Füße	sind Schuhe	können Blasen machen

Violine und Gitarre:

darauf kann man spielen	sind Musikinstrumente	damit muss man vorsichtig umgehen	haben Saiten

Hagebuttenstrauch und Rose:

daran kann man sich kratzen	haben Blätter	brauchen Wasser	sind Gewächse

Kreuze <u>die</u> Gemeinsamkeit an, die am besten passt.

Sessel und Sofa:

haben vier Beine	darauf kann man sitzen	sind Möbel	sind bequem

Bauernhof und Sommerhaus:

haben ein Dach	sind Gebäude	sind gut in den Sommerferien	darin kann man wohnen

Habicht und Adler:

machen anderen Tieren Angst	haben Federn	sind Vögel	fliegen

10-Cent-Stück und 5-Cent-Stück:

ist Geld	damit bezahlt man	Taschengeld	haben Sterne auf einer Seite

Mütze und Hut:

sind rund	wärmen	sind Kopfbedeckungen	kann man leicht vergessen

Buch und Zeitung:

beinhalten Information	haben gedruckte Buchstaben	sind lustig	sind Drucksachen

Radio und Fernsehen:

senden Programme	haben einen Ausschaltknopf	haben nette Programme	sind Massenmedien

Manche Kinder haben Freunde, deren Familie aus einem anderen Land stammt. Zum Beispiel haben manche Kinder Freunde, deren Familie aus der Türkei, Italien oder Polen stammt. Hast du auch solche Freunde?

Hast du Freunde, deren **Familie aus der Türkei** kommt?
Schreibe ihre Vornamen auf:

Hast du Freunde, deren **Familie aus einem anderen Land** als der Türkei kommt, zum Beispiel Griechenland oder Tschechien oder einem anderen Land?
Schreibe ihre Vornamen auf:

Hast du auch Freunde, deren **Familie aus Deutschland** kommt?
Schreibe ihre Vornamen auf:

Kreuze an, was stimmt:

Wie oft redest oder spielst du in der Schule mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du in Vereinen mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du nachmittags mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Kreuze an, was stimmt:

Denke bitte an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die türkische Freunde haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke wieder an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die Freunde aus einem anderen Land, zum Beispiel Italien oder Polen haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke an deine Freunde. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Personen werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Du erinnerst dich bestimmt an die Fragen mit den Kinderbildern. Kannst du dir vorstellen, wie das Kind in deiner Klasse antworten würde, mit dem du am besten befreundet bist? Denk bitte daran, wie dieses Kind so ist und was es sagt und tut. Dann beantworte die beiden Fragen unten.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Denke an deine Klasse. Kreuze an, was stimmt:

Deutsche und türkische Kinder sitzen gern nebeneinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Deutsche und türkische Kinder reden und spielen miteinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Beschreibe deine Klasse:

In unserer Klasse halten alle zusammen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Die Kinder meiner Klasse prügeln sich.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich fühle mich in meiner Klasse wohl.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ein anderes Kind sagt etwas Gemeines zu mir.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie alt bist du? ☐ Jahre

Was bist du? ☐ Junge ☐ Mädchen

Wo bist du geboren?

☐ Deutschland

☐ Türkei

☐ Italien

☐ Polen

☐ Russland

☐ Anderes Land und zwar:

Sind deine Eltern oder Großeltern aus einem anderen Land nach Deutschland gekommen?

☐ nein

☐ ja ⇨ Aus welchem Land sind deine Eltern oder Großeltern nach Deutschland gekommen?

- ☐ Türkei
- ☐ Italien
- ☐ Polen
- ☐ Russland
- ☐ Anderes Land und zwar:

Welche Sprache sprichst du mit deinen Freunden?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Welche Sprache sprichst Du in Deiner Familie?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Hat schon einmal jemand etwas Gemeines zu dir gesagt, weil deine Familie und die des anderen aus verschiedenen Ländern kommen?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich möchte dich nächstes Jahr noch einmal befragen. Daher muss ich diesen Fragebogen hier deinen Antworten nächstes Jahr zuordnen können. Gib bitte als dein Zeichen fünf Buchstaben an, und zwar erst die ersten drei Buchstaben des Vornamens deiner Mutter und dann die ersten beiden Buchstaben deines Geburtsmonats.

Ein Beispiel:

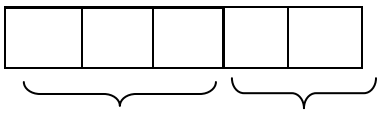
Die Mutter eines Kindes heißt mit Vornamen Marianne. Das Kind trägt in die ersten drei Felder ein M, ein A und ein R ein:

M	**A**	**R**		

Das Kind hat im Juli Geburtstag. Das Kind trägt daher in die anderen beiden Felder ein J und ein U ein.

M	**A**	**R**	**J**	**U**

Jetzt bist du an der Reihe. Bitte trage die Buchstaben in dein Zeichen ein:



Erste drei Buchstaben des Vornamens deiner Mutter

Erste beide Buchstaben deines Geburtsmonats

B) Social-cognitive version of the data-collection-1 questionnaire for grade 3 (boys' version)

Fragebogen

In diesem Fragebogen geht es darum, was du denkst und erlebt hast.

Dies ist keine Klassenarbeit.

Es gibt keine richtigen oder falschen Antworten.

Es gibt keine Noten.

Bitte schau nicht, was andere machen.

Nur das, was **du** denkst ist jetzt wichtig!

Schreibe nirgendwo deinen Namen hin.

Auf der Liste an der Tafel siehst du, dass jedes Kind aus deiner Klasse eine Nummer hat.

Neben wem möchtest du im Unterricht gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am liebsten sitzen möchtest. Verwende dazu die Nummern an der Tafel. Wähle nicht dich selbst!

6. Am liebsten möchte ich neben Nummer ☐ sitzen.
7. Am zweitliebsten möchte ich neben Nummer ☐ sitzen.
8. Am drittliebsten möchte ich neben Nummer ☐ sitzen.
9. Am viertliebsten möchte ich neben Nummer ☐ sitzen.
10. Am fünftliebsten möchte ich neben Nummer ☐ sitzen.

Neben wem möchtest du im Unterricht nicht so gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am wenigsten gern sitzen möchtest. Verwende wieder die Nummern an der Tafel. Wähle nicht dich selbst!

6. Am wenigsten gern möchte ich neben Nummer ☐ sitzen.
7. Am zweitwenigsten möchte ich neben Nummer ☐ sitzen.
8. Am drittwenigsten möchte ich neben Nummer ☐ sitzen.
9. Am viertwenigsten möchte ich neben Nummer ☐ sitzen.
10. Am fünftwenigsten möchte ich neben Nummer ☐ sitzen.

Mit wem in deiner Klasse bist du befreundet?

Das heißt, mit wem triffst du dich am häufigsten nach der Schule? Gib bitte die Nummern an.

Am besten bin ich mit Nummer ☐ befreundet.

Am zweitbesten bin ich mit Nummer ☐ befreundet.

Am drittbesten bin ich mit Nummer ☐ befreundet.

Ich selbst bin Nummer ☐ .

In Deutschland leben neben Menschen, deren Familie schon immer in Deutschland gelebt hat, auch Menschen, deren Familie vor Jahren aus einem anderen Land (z.B. aus der Türkei oder Polen) nach Deutschland gekommen ist.

Bewerte bitte die folgenden Gruppen von Menschen, die in Deutschland leben.

Falls du aus manchen Gruppen niemanden kennst, bewerte die Gruppe trotzdem, so wie du denkst, dass sie sind! Kreuze die Gesichter an, die deiner Bewertung am besten entsprechen. **Kreuze in jedem Kasten nur ein Gesicht an.**

Deutsche mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Kreuze wieder in jedem Kasten <u>das</u> Gesicht an, das dazu passt, was du denkst:

Türkische Menschen in Deutschland mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Mädchen mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Jungen mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Italienische Menschen in Deutschland mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Russische Menschen in Deutschland mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die aus einem anderen Land nach Deutschland kommen, mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die eine andere Sprache als ich sprechen, mag ich...

sehr gern | gerne | nicht so gerne | gar nicht gern

Es gibt in Deutschland deutsche, türkische, italienische, polnische Kinder und Kinder aus anderen Ländern.

Was bist du? Schreibe es auf: ☐

Bist du froh, dass dies so ist?

☐ sehr froh ☐ froh ☐ nicht so froh ☐ gar nicht froh

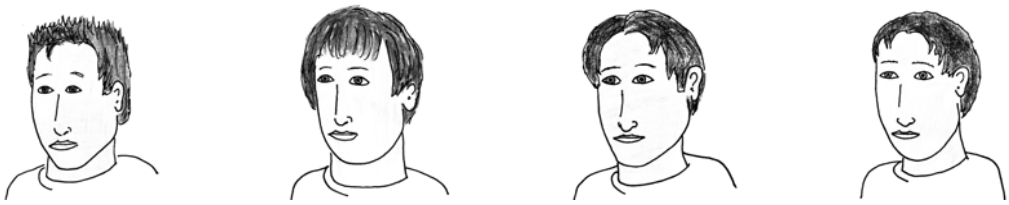
Wie wichtig ist dir das?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Wie wichtig ist es dir, dass du ein Junge bist?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Dies ist eine Gruppe von Kindern, deren Familie aus Deutschland kommt:

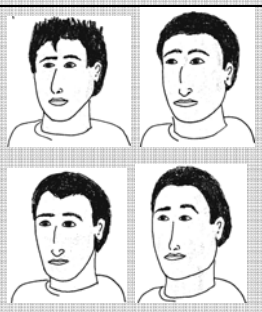
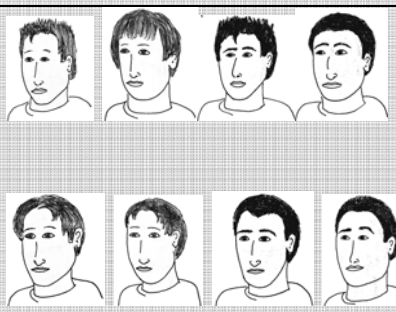


Dies ist eine Gruppe von Kindern, deren Familie vor Jahren aus der Türkei nach Deutschland gekommen ist:

Gleich kommen einige Beschreibungen dazu, wie jemand sein kann. Du sollst jeweils ankreuzen, auf wen die Beschreibung passt. Außerdem sollst du ankreuzen, wie es dir gefällt, wenn jemand so ist.

Beispiel: Ein Schüler kreuzt folgendes an:

Manche Kinder **sind Naschkatzen** – sie lieben Schokolade und Bonbons. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	~~Auf die „deutschen“ **und** auf die „türkischen“ Kinder.~~	Auf keine der beiden Gruppen.

Der Schüler denkt also, dass sowohl die Kinder mit Familien aus Deutschland als auch die Kinder, deren Familie aus der Türkei nach Deutschland gekommen ist, gerne Schokolade und Bonbons mögen. Außerdem kreuzt der Schüler an:

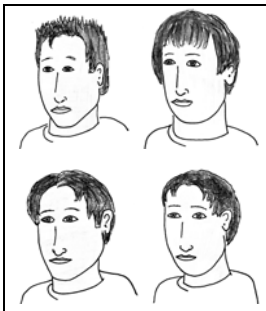
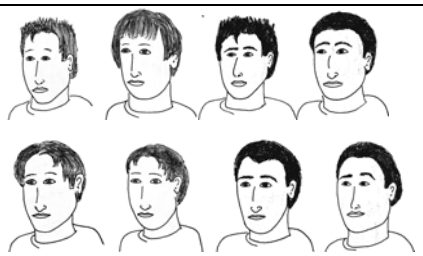
Wenn jemand **eine Naschkatze** ist, wie findest du das?

Sehr gut gut nicht so gut schlecht

Das heißt, dass der Schüler es sehr gut findet, wenn jemand Süßigkeiten liebt.

Jetzt bist du selbst an der Reihe. Bitte kreuze bei jeder der Beschreibungen auf den nächsten Seiten das an, was du denkst.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **nett** ist, wie findest du das?

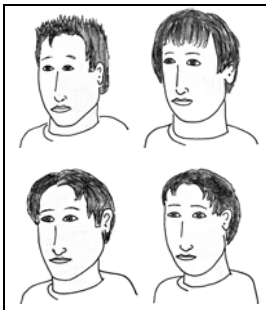
 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unehrlich** ist, wie findest du das?

 Sehr gut

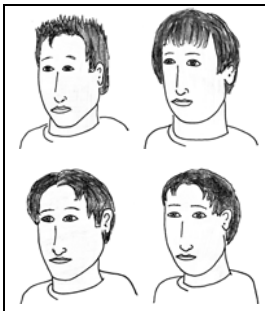
 gut

 nicht so gut

 schlecht

Manche Kinder sind **gemein** – sie beschimpfen oder schlagen andere Kinder.

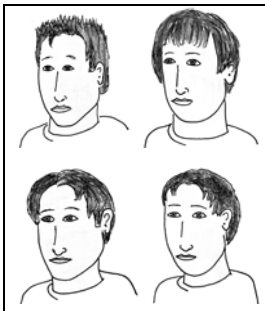
Was meinst du, auf wen trifft dies zu? Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **gemein** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

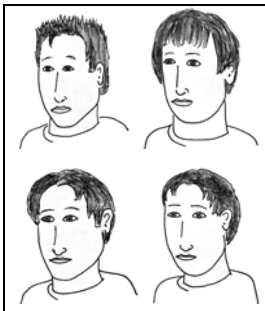
Manche Kinder sind **ordentlich** – sie räumen immer ihre Sachen und ihr Zimmer auf. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ordentlich** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

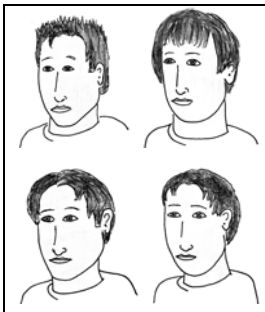
Manche Kinder sind **unfreundlich** – sie schubsen andere herum und geraten mit anderen in Streit. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unfreundlich** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Manche Kinder sind **ehrlich** – sie halten, was sie versprechen und sagen nichts, was nicht stimmt. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ehrlich** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Metin, Demir, Murat, Timur und Mehmet sind Kinder, deren Großeltern aus der Türkei nach Deutschland gekommen sind. Lukas, Niklas, Marcel, Jan und Alexander sind Kinder, deren Familie schon immer in Deutschland gelebt hat.

Meinst du die „türkischen“ (also **Metin, Demir, Murat, Timur** und **Mehmet**) und die „deutschen“ Kinder (also **Lukas, Niklas, Marcel, Jan** und **Alexander**) mögen dieselben Spiele?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder mögen dieselben Filme?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder haben dieselben Sorgen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder träumen von denselben Dingen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Es gibt in Deutschland Kinder, deren Eltern oder Großeltern aus der Türkei nach Deutschland gekommen sind. Kreuze an, was du meinst:

Was meinst du, wie viele dieser Kinder sind **gut in der Schule**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **hübsch**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **helfen anderen Menschen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **beliebt bei anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **teilen mit anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **sagen gemeine Dinge**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Die Familie mancher Kinder hat schon immer in Deutschland gelebt. Kreuze an, was du meinst:

Was meinst du, wie viele dieser Kinder sind **gut in der Schule**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **hübsch**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **helfen anderen Menschen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **beliebt bei anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **teilen mit anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **sagen gemeine Dinge**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Manche Kinder haben Freunde, deren Familie aus einem anderen Land stammt. Zum Beispiel haben manche Kinder Freunde, deren Familie aus der Türkei, Italien oder Polen stammt. Hast du auch solche Freunde?

Hast du Freunde, deren **Familie aus der Türkei** kommt?
Schreibe ihre Vornamen auf:

Hast du Freunde, deren **Familie aus einem anderen Land** als der Türkei kommt, zum Beispiel Griechenland oder Tschechien oder einem anderen Land?
Schreibe ihre Vornamen auf:

Hast du auch Freunde, deren **Familie aus Deutschland** kommt?
Schreibe ihre Vornamen auf:

Kreuze an, was stimmt:

Wie oft redest oder spielst du in der Schule mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du in Vereinen mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du nachmittags mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Kreuze an, was stimmt:

Denke bitte an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die türkische Freunde haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke wieder an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die Freunde aus einem anderen Land, zum Beispiel Italien oder Polen haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke an deine Freunde. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

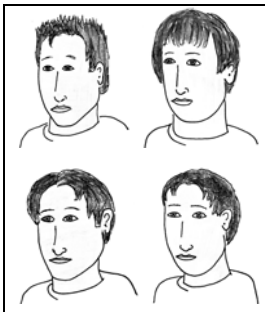
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Personen werden beschimpft.

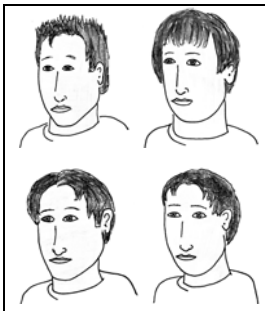
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Du erinnerst dich bestimmt an die Fragen mit den Kinderbildern. Kannst du dir vorstellen, wie das Kind in deiner Klasse antworten würde, mit dem du am besten befreundet bist? Denk bitte daran, wie dieses Kind so ist und was es sagt und tut. Dann beantworte die beiden Fragen unten.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Denke an deine Klasse. Kreuze an, was stimmt:

Deutsche und türkische Kinder sitzen gern nebeneinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Deutsche und türkische Kinder reden und spielen miteinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Beschreibe deine Klasse:

In unserer Klasse halten alle zusammen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Die Kinder meiner Klasse prügeln sich.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich fühle mich in meiner Klasse wohl.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ein anderes Kind sagt etwas Gemeines zu mir.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie alt bist du? ☐ Jahre

Was bist du? ☐ Junge ☐ Mädchen

Wo bist du geboren?

☐ Deutschland

☐ Türkei

☐ Italien

☐ Polen

☐ Russland

☐ Anderes Land und zwar:

Sind deine Eltern oder Großeltern aus einem anderen Land nach Deutschland gekommen?

☐ nein

☐ ja ⇨ Aus welchem Land sind deine Eltern oder Großeltern nach Deutschland gekommen?

- ☐ Türkei
- ☐ Italien
- ☐ Polen
- ☐ Russland
- ☐ Anderes Land und zwar:

Welche Sprache sprichst du mit deinen Freunden?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Welche Sprache sprichst Du in Deiner Familie?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Hat schon einmal jemand etwas Gemeines zu dir gesagt, weil deine Familie und die des anderen aus verschiedenen Ländern kommen?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich möchte dich nächstes Jahr noch einmal befragen. Daher muss ich diesen Fragebogen hier deinen Antworten nächstes Jahr zuordnen können. Gib bitte als dein Zeichen fünf Buchstaben an, und zwar erst die ersten drei Buchstaben des Vornamens deiner Mutter und dann die ersten beiden Buchstaben deines Geburtsmonats.

Ein Beispiel:

Die Mutter eines Kindes heißt mit Vornamen Marianne. Das Kind trägt in die ersten drei Felder ein M, ein A und ein R ein:

M	**A**	**R**		

Das Kind hat im Juli Geburtstag. Das Kind trägt daher in die anderen beiden Felder ein J und ein U ein.

M	**A**	**R**	**J**	**U**

Jetzt bist du an der Reihe. Bitte trage die Buchstaben in dein Zeichen ein:

Erste drei Buchstaben des Vornamens deiner Mutter

Erste beide Buchstaben deines Geburtsmonats

C) Data-collection-1 questionnaire for grade 5 (version for girls)

Fragebogen

In diesem Fragebogen geht es darum, was du denkst und erlebt hast.

Dies ist keine Klassenarbeit.

Es gibt keine richtigen oder falschen Antworten.

Es gibt keine Noten.

Bitte schau nicht, was andere machen.

Nur das, was **du** denkst ist jetzt wichtig!

Schreibe nirgendwo deinen Namen hin.

Auf der Liste an der Tafel siehst du, dass jedes Kind aus deiner Klasse eine Nummer hat.

Neben wem möchtest du im Unterricht gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am liebsten sitzen möchtest. Verwende dazu die Nummern an der Tafel. Wähle nicht dich selbst!

11.Am liebsten möchte ich neben Nummer ☐ sitzen.

12.Am zweitliebsten möchte ich neben Nummer ☐ sitzen.

13.Am drittliebsten möchte ich neben Nummer ☐ sitzen.

14.Am viertliebsten möchte ich neben Nummer ☐ sitzen.

15.Am fünftliebsten möchte ich neben Nummer ☐ sitzen.

Neben wem möchtest du im Unterricht nicht so gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am wenigsten gern sitzen möchtest. Verwende wieder die Nummern an der Tafel. Wähle nicht dich selbst!

11.Am wenigsten gern möchte ich neben Nummer ☐ sitzen.

12.Am zweitwenigsten möchte ich neben Nummer ☐ sitzen.

13.Am drittwenigsten möchte ich neben Nummer ☐ sitzen.

14.Am viertwenigsten möchte ich neben Nummer ☐ sitzen.

15.Am fünftwenigsten möchte ich neben Nummer ☐ sitzen.

Mit wem in deiner Klasse bist du befreundet?

Das heißt, mit wem triffst du dich am häufigsten nach der Schule? Gib bitte die Nummern an.

Am besten bin ich mit Nummer ☐ befreundet.

Am zweitbesten bin ich mit Nummer ☐ befreundet.

Am drittbesten bin ich mit Nummer ☐ befreundet.

Ich selbst bin Nummer ☐ .

In Deutschland leben neben Menschen, deren Familie schon immer in Deutschland gelebt hat, auch Menschen, deren Familie vor Jahren aus einem anderen Land (z.B. aus der Türkei oder Polen) nach Deutschland gekommen ist.

Bewerte bitte die folgenden Gruppen von Menschen, die in Deutschland leben.

Falls du aus manchen Gruppen niemanden kennst, bewerte die Gruppe trotzdem, so wie du denkst, dass sie sind! Kreuze die Gesichter an, die deiner Bewertung am besten entsprechen. **Kreuze in jedem Kasten nur ein Gesicht an.**

Deutsche mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Kreuze wieder in jedem Kasten <u>das</u> Gesicht an, das dazu passt, was du denkst:

Türkische Menschen in Deutschland mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Türkische Mädchen mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Türkische Jungen mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Italienische Menschen in Deutschland mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Russische Menschen in Deutschland mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Menschen, die aus einem anderen Land nach Deutschland kommen, mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Menschen, die eine andere Sprache als ich sprechen, mag ich…


sehr gern


gerne


nicht so gerne


gar nicht gern

Es gibt in Deutschland deutsche, türkische, italienische, polnische Kinder und Kinder aus anderen Ländern.

Was bist du? Schreibe es auf: ☐

Bist du froh, dass dies so ist?

☐ sehr froh ☐ froh ☐ nicht so froh ☐ gar nicht froh

Wie wichtig ist dir das?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Wie wichtig ist es dir, dass du ein Mädchen bist?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Dies ist eine Gruppe von Kindern, deren Familie aus Deutschland kommt:

Dies ist eine Gruppe von Kindern, deren Familie vor Jahren aus der Türkei nach Deutschland gekommen ist:

Gleich kommen einige Beschreibungen dazu, wie jemand sein kann. Du sollst jeweils ankreuzen, auf wen die Beschreibung passt. Außerdem sollst du ankreuzen, wie es dir gefällt, wenn jemand so ist.

Beispiel: Eine Schülerin kreuzt folgendes an:

Manche Kinder **sind Naschkatzen** – sie lieben Schokolade und Bonbons. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	~~Auf die „deutschen“ **und** auf die „türkischen“ Kinder.~~	Auf keine der beiden Gruppen.

Die Schülerin denkt also, dass sowohl die Kinder mit Familien aus Deutschland als auch die Kinder, deren Familie aus der Türkei nach Deutschland gekommen ist, gerne Schokolade und Bonbons mögen. Außerdem kreuzt die Schülerin an:

Wenn jemand **eine Naschkatze** ist, wie findest du das?

Sehr gut gut nicht so gut schlecht

Das heißt, dass die Schülerin es sehr gut findet, wenn jemand Süßigkeiten liebt.

Jetzt bist du selbst an der Reihe. Bitte kreuze bei jeder der Beschreibungen auf den nächsten Seiten das an, was du denkst.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **nett** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unehrlich** ist, wie findest du das?

 Sehr gut  gut  nicht so gut  schlecht

Manche Kinder sind **gemein** – sie beschimpfen oder schlagen andere Kinder.

Was meinst du, auf wen trifft dies zu? Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **gemein** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **ordentlich** – sie räumen immer ihre Sachen und ihr Zimmer auf. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ordentlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **unfreundlich** – sie schubsen andere herum und geraten mit anderen in Streit. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **unfreundlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Manche Kinder sind **ehrlich** – sie halten, was sie versprechen und sagen nichts, was nicht stimmt. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Wenn jemand **ehrlich** ist, wie findest du das?

 Sehr gut

 gut

 nicht so gut

 schlecht

Vergleiche einen Apfel mit einer Birne!


Du siehst, dass sie recht verschieden sind. Aber sie ähneln sich auch in vielen Beziehungen. So ist es mit vielen Dingen.

Nimm z.B. einen Pilz und einen Regenschirm.


Auf welche Art und Weise findest du, dass sie sich ähneln?

Dinge können auf verschiedene Art und Weise ähnlich sein. Man kann nicht sagen, dass nur eine Ähnlichkeit die einzig richtige ist! Es gibt viele verschiedene Ähnlichkeiten und alle sind richtig auf ihre Art und Weise.

Wenn man nun verschiedene Möglichkeiten zur Auswahl hat, findet man meistens eine passender oder besser als die anderen. In dieser Beziehung denken Personen sehr unterschiedlich. Aber alle können Recht haben, da ja alle Ähnlichkeiten richtig sind!

Jetzt kommt Beispiel: Du sollst sagen, welche Ähnlichkeit am besten passt bei einem Brötchen und einem Brot.

Hier sind einige Ähnlichkeiten aufgeschrieben, zwischen denen du wählen sollst. Kreuze die Ähnlichkeit an, von der du meinst, dass sie am besten passt:

kann man essen	sind Backwaren	beinhalten Hefe	schmecken lecker mit Butter drauf

Auf der nächsten Seite kommen eine Reihe solcher Aufgaben.

Kreuze immer <u>die</u> Gemeinsamkeit an, die am besten passt!

Kümmere dich nicht darum, was Deine Klassenkameraden wählen!

Mach es so, wie es **dir** richtig scheint!

Kreuze bei jeder Aufgabe nur <u>eine</u> Gemeinsamkeit an.

Kreuze <u>die</u> Gemeinsamkeit an, die am besten passt.

Auto und Bus:

haben Räder	darin kann man fahren	sind Fahrzeuge	damit kann man Unfälle bauen

Banane und Orange:

schmecken gut	haben Schale	sind Früchte	kann man essen

Säge und Messer:

sind Werkzeuge	daran kann man sich verletzen	sind scharf	damit kann man zerteilen

Fähre und Lastboot:

gibt es auf dem See	transportieren	man kann davon seekrank werden	sind Fahrzeuge

Salz und Zucker:

sind weiß	verwendet man im Essen	sind Gewürze	kann man leicht verwechseln

Stiefel und Sandalen:

gibt es in vielen Größen	schützen die Füße	sind Schuhe	können Blasen machen

Violine und Gitarre:

darauf kann man spielen	sind Musikinstrumente	damit muss man vorsichtig umgehen	haben Saiten

Hagebuttenstrauch und Rose:

daran kann man sich kratzen	haben Blätter	brauchen Wasser	sind Gewächse

Kreuze <u>die</u> Gemeinsamkeit an, die am besten passt.

Sessel und Sofa:

haben vier Beine	darauf kann man sitzen	sind Möbel	sind bequem

Bauernhof und Sommerhaus:

haben ein Dach	sind Gebäude	sind gut in den Sommerferien	darin kann man wohnen

Habicht und Adler:

machen anderen Tieren Angst	haben Federn	sind Vögel	fliegen

10-Cent-Stück und 5-Cent-Stück:

ist Geld	damit bezahlt man	Taschengeld	haben Sterne auf einer Seite

Mütze und Hut:

sind rund	wärmen	sind Kopfbedeckungen	kann man leicht vergessen

Buch und Zeitung:

beinhalten Information	haben gedruckte Buchstaben	sind lustig	sind Drucksachen

Radio und Fernsehen:

senden Programme	haben einen Ausschaltknopf	haben nette Programme	sind Massenmedien

Sibel, Ebru, Meryam, Leyla und Sinem sind Kinder, deren Großeltern aus der Türkei nach Deutschland gekommen sind. Sarah, Michelle, Lena, Julia und Laura sind Kinder, deren Familie schon immer in Deutschland gelebt hat.

Meinst du die „türkischen“ (also **Sibel, Ebru, Meryam, Leyla** und **Sinem**) und die „deutschen“ Kinder (also **Sarah, Michelle, Lena, Julia** und **Laura**) mögen dieselben Spiele?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder mögen dieselben Filme?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder haben dieselben Sorgen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du die „türkischen“ und die „deutschen“ Kinder träumen von denselben Dingen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Es gibt in Deutschland Kinder, deren Eltern oder Großeltern aus der Türkei nach Deutschland gekommen sind. Kreuze an, was du meinst:

Was meinst du, wie viele dieser Kinder sind **gut in der Schule**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **hübsch**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **helfen anderen Menschen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **beliebt bei anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **teilen mit anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **sagen gemeine Dinge**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Die Familie mancher Kinder hat schon immer in Deutschland gelebt. Kreuze an, was du meinst:

Was meinst du, wie viele dieser Kinder sind **gut in der Schule**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **hübsch**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **helfen anderen Menschen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder sind **beliebt bei anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **teilen mit anderen**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Was meinst du, wie viele dieser Kinder **sagen gemeine Dinge**?

☐ fast alle ☐ viele ☐ manche ☐ fast keines

Manche Kinder haben Freunde, deren Familie aus einem anderen Land stammt. Zum Beispiel haben manche Kinder Freunde, deren Familie aus der Türkei, Italien oder Polen stammt. Hast du auch solche Freunde?

Hast du Freunde, deren **Familie aus der Türkei** kommt?
Schreibe ihre Vornamen auf:

Hast du Freunde, deren **Familie aus einem anderen Land** als der Türkei kommt, zum Beispiel Griechenland oder Tschechien oder einem anderen Land?
Schreibe ihre Vornamen auf:

Hast du auch Freunde, deren **Familie aus Deutschland** kommt?
Schreibe ihre Vornamen auf:

Kreuze an, was stimmt:

Wie oft redest oder spielst du in der Schule mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du in Vereinen mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du nachmittags mit türkischen Kindern?
☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Kreuze an, was stimmt:

Denke bitte an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die türkische Freunde haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke wieder an deine Freunde, deine Klasse und deine Familie. Wie viele Leute kennst du, die Freunde aus einem anderen Land, zum Beispiel Italien oder Polen haben (dich nicht mitgezählt)?




☐ mehr als drei ☐ drei ☐ zwei ☐ einen ☐ keinen

Denke an deine Freunde. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Personen werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Du erinnerst dich bestimmt an die Fragen mit den Kinderbildern. Kannst du dir vorstellen, wie das Kind in deiner Klasse antworten würde, mit dem du am besten befreundet bist? Denk bitte daran, wie dieses Kind so ist und was es sagt und tut. Dann beantworte die beiden Fragen unten.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Auf welche Kinder trifft das zu?**
Was meinst du, wie würde das Kind antworten, mit dem du in der Klasse am besten befreundet bist? **Kreuze die Aufgabe so an, wie es deine beste Freundin oder dein bester Freund in der Klasse machen würde.**

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Denke an deine Klasse. Kreuze an, was stimmt:

Deutsche und türkische Kinder sitzen gern nebeneinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Deutsche und türkische Kinder reden und spielen miteinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder dürfen nicht mitmachen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Beschreibe deine Klasse:

In unserer Klasse halten alle zusammen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Die Kinder meiner Klasse prügeln sich.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich fühle mich in meiner Klasse wohl.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ein anderes Kind sagt etwas Gemeines zu mir.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie alt bist du? ☐ Jahre

Was bist du? ☐ Junge ☐ Mädchen

Wo bist du geboren?

☐ Deutschland

☐ Türkei

☐ Italien

☐ Polen

☐ Russland

☐ Anderes Land und zwar:

Sind deine Eltern oder Großeltern aus einem anderen Land nach Deutschland gekommen?

☐ nein

☐ ja ⇨ Aus welchem Land sind deine Eltern oder Großeltern nach Deutschland gekommen?

- ☐ Türkei
- ☐ Italien
- ☐ Polen
- ☐ Russland
- ☐ Anderes Land und zwar:

Welche Sprache sprichst du mit deinen Freunden?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Welche Sprache sprichst Du in Deiner Familie?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Hat schon einmal jemand etwas Gemeines zu dir gesagt, weil deine Familie und die des anderen aus verschiedenen Ländern kommen?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich möchte dich nächstes Jahr noch einmal befragen. Daher muss ich diesen Fragebogen hier deinen Antworten nächstes Jahr zuordnen können. Gib bitte als dein Zeichen fünf Buchstaben an, und zwar erst die ersten drei Buchstaben des Vornamens deiner Mutter und dann die ersten beiden Buchstaben deines Geburtsmonats.

Ein Beispiel:

Die Mutter eines Kindes heißt mit Vornamen Marianne. Das Kind trägt in die ersten drei Felder ein M, ein A und ein R ein:

M	**A**	**R**		

Das Kind hat im Juli Geburtstag. Das Kind trägt daher in die anderen beiden Felder ein J und ein U ein.

M	**A**	**R**	**J**	**U**

Jetzt bist du an der Reihe. Bitte trage die Buchstaben in dein Zeichen ein:

Erste drei Buchstaben des Vornamens deiner Mutter

Erste beide Buchstaben deines Geburtsmonats

D) Data-collection-2 questionnaire (version for girls)

Fragebogen

Zur Erinnerung:

In diesem Fragebogen geht es darum, was du denkst und erlebt hast.

Dies ist keine Klassenarbeit.

Es gibt keine richtigen oder falschen Antworten.

Es gibt keine Noten.

Bitte schau nicht, was andere machen.

Nur das, was **du** denkst, ist jetzt wichtig!

Schreibe nirgendwo deinen Namen hin.

Auf der Liste an der Tafel siehst du, dass jedes Kind aus deiner Klasse eine Nummer hat.

Neben wem möchtest du im Unterricht gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am liebsten sitzen möchtest. Verwende dazu die Nummern an der Tafel. Wähle nicht dich selbst!

16.Am liebsten möchte ich neben Nummer ☐ sitzen.

17.Am zweitliebsten möchte ich neben Nummer ☐ sitzen.

18.Am drittliebsten möchte ich neben Nummer ☐ sitzen.

19.Am viertliebsten möchte ich neben Nummer ☐ sitzen.

20.Am fünftliebsten möchte ich neben Nummer ☐ sitzen.

Neben wem möchtest du im Unterricht nicht so gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am wenigsten gern sitzen möchtest. Verwende wieder die Nummern an der Tafel. Wähle nicht dich selbst!

16.Am wenigsten gern möchte ich neben Nummer ☐ sitzen.

17.Am zweitwenigsten möchte ich neben Nummer ☐ sitzen.

18.Am drittwenigsten möchte ich neben Nummer ☐ sitzen.

19.Am viertwenigsten möchte ich neben Nummer ☐ sitzen.

20.Am fünftwenigsten möchte ich neben Nummer ☐ sitzen.

Mit wem in deiner Klasse bist du befreundet?

Das heißt, mit wem triffst du dich am häufigsten nach der Schule? Gib bitte die Nummern an.

Am besten bin ich mit Nummer ☐ befreundet.

Am zweitbesten bin ich mit Nummer ☐ befreundet.

Am drittbesten bin ich mit Nummer ☐ befreundet.

Ich selbst bin Nummer ☐ .

In Deutschland leben neben Menschen, deren Familie schon immer in Deutschland gelebt hat, auch Menschen, deren Familie vor Jahren aus einem anderen Land (z.B. aus der Türkei oder Polen) nach Deutschland gekommen ist.

Bewerte bitte die folgenden Gruppen von Menschen, die in Deutschland leben.

Falls du aus manchen Gruppen niemanden kennst, bewerte die Gruppe trotzdem, so wie du denkst, dass sie ist! Kreuze die Gesichter an, die deiner Bewertung am besten entsprechen. **Kreuze in jedem Kasten nur ein Gesicht an.**

Deutsche mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Kreuze wieder in jedem Kasten <u>das</u> Gesicht an, das dazu passt, was du denkst:

Türkische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Mädchen mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Jungen mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Italienische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Russische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die aus einem anderen Land nach Deutschland kommen, mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die eine andere Sprache als ich sprechen, mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Es gibt in Deutschland deutsche, türkische, italienische, polnische Kinder und Kinder aus anderen Ländern.

Was bist du? Schreibe es auf: ☐

Bist du froh, dass dies so ist?

☐ sehr froh ☐ froh ☐ nicht so froh ☐ gar nicht froh

Wie wichtig ist dir das?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Wie wichtig ist es dir, dass du ein Mädchen bist?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Dies ist eine Gruppe von Kindern, deren Familie aus Deutschland kommt:

Dies ist eine Gruppe von Kindern, deren Familie vor Jahren aus der Türkei nach Deutschland gekommen ist:

Gleich kommen einige Beschreibungen dazu, wie jemand sein kann. Du sollst jeweils ankreuzen, auf wen die Beschreibung passt.

Beispiel: Eine Schülerin kreuzt folgendes an:

Manche Kinder **sind Naschkatzen** – sie lieben Schokolade und Bonbons. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	~~Auf die „deutschen“ **und** auf die „türkischen“ Kinder.~~	Auf keine der beiden Gruppen.

Die Schülerin denkt also, dass sowohl die Kinder mit Familien aus Deutschland, als auch die Kinder, deren Familie aus der Türkei nach Deutschland gekommen ist, gerne Schokolade und Bonbons mögen.

Jetzt bist du selbst an der Reihe. Bitte kreuze bei jeder der Beschreibungen auf den nächsten Seiten das an, was du denkst.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **gemein** – sie beschimpfen oder schlagen andere Kinder. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **ordentlich** – sie räumen immer ihre Sachen und ihr Zimmer auf. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unfreundlich** – sie schubsen andere herum und geraten mit anderen in Streit. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **ehrlich** – sie halten, was sie versprechen und sagen nichts, was nicht stimmt. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Ein Apfel  und eine Birne  unterscheiden sich in manchen Dingen. So ist der Apfel eher rund und die Birne länglich. Sie haben aber auch manche Dinge gemeinsam. Zum Beispiel kann man beide essen, beide haben einen Stiel, beide sind Obst und beide sind gesund.

So ist es mit vielen Dingen. Es gibt viele verschiedene Ähnlichkeiten und alle sind richtig auf ihre Art und Weise.

Auf der nächsten Seite siehst du immer vier Ähnlichkeiten zwischen zwei Dingen.

Du sollst dir immer **die** eine Ähnlichkeit aussuchen und ankreuzen, die du am wichtigsten findest.

Stell dir vor, du dürftest nur eine der Möglichkeiten wählen, um zu beschreiben, wie sich die beiden Dinge ähnlich sind – welche würdest du wählen?

Kreuze immer <u>die</u> Gemeinsamkeit an, die am besten passt!

Kümmere dich nicht darum, was Deine Klassenkameraden wählen!

Kreuze bei jeder Aufgabe nur <u>eine</u> Gemeinsamkeit an.

Salz und Zucker:

sind weiß	verwendet man im Essen	sind Gewürze	kann man leicht verwechseln

Stiefel und Sandalen:

gibt es in vielen Größen	schützen die Füße	sind Schuhe	können Blasen machen

Violine und Gitarre:

darauf kann man spielen	sind Musikinstrumente	damit muss man vorsichtig umgehen	haben Saiten

Sessel und Sofa:

haben vier Beine	darauf kann man sitzen	sind Möbel	sind bequem

Habicht und Adler:

machen anderen Tieren Angst	haben Federn	sind Vögel	fliegen

10-Cent-Stück und 5-Cent-Stück:

ist Geld	damit bezahlt man	Taschengeld	haben Sterne auf einer Seite

Sibel, Ebru, Meryam, Leyla und Sinem sind Kinder, deren Großeltern aus der Türkei nach Deutschland gekommen sind. Sarah, Michelle, Lena, Julia und Laura sind Kinder, deren Familie schon immer in Deutschland gelebt hat.

Meinst du, die „türkischen“ (also **Sibel, Ebru, Meryam, Leyla** und **Sinem**) und die „deutschen“ Kinder (also **Sarah, Michelle, Lena, Julia** und **Laura**) mögen dieselben Spiele?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder mögen dieselben Filme?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder haben dieselben Sorgen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder träumen von denselben Dingen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Ich habe dich ja letztes Jahr schon einmal befragt. Deine Antworten in diesem Fragebogen möchte ich mit den Antworten letztes Jahr vergleichen. Daher muss ich die beiden Fragebögen einander zuordnen können. Gib bitte als dein Zeichen wie im letzten Jahr fünf Buchstaben an, und zwar erst die ersten drei Buchstaben des Vornamens deiner Mutter und dann die ersten beiden Buchstaben deines Geburtsmonats.

Ein Beispiel:

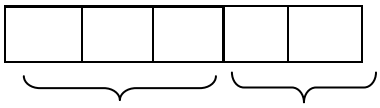
Die Mutter eines Kindes heißt mit Vornamen Marianne. Das Kind trägt in die ersten drei Felder ein M, ein A und ein R ein:

M	**A**	**R**		

Das Kind hat im Juli Geburtstag. Das Kind trägt daher in die anderen beiden Felder ein J und ein U ein.

M	**A**	**R**	**J**	**U**

Jetzt bist du an der Reihe. Bitte trage die Buchstaben in dein Zeichen ein:



Erste drei Buchstaben des Vornamens deiner Mutter

Erste beide Buchstaben deines Geburtsmonats

Wie alt bist du? ☐ Jahre

Was bist du? ☐ Junge ☐ Mädchen

Wo bist du geboren?

☐ Deutschland

☐ Türkei

☐ Italien

☐ Polen

☐ Russland

☐ Anderes Land und zwar:

Sind deine Eltern oder Großeltern aus einem anderen Land nach Deutschland gekommen?

☐ nein

☐ ja ⇨ Aus welchem Land sind deine Eltern oder Großeltern nach Deutschland gekommen?

- ☐ Türkei
- ☐ Italien
- ☐ Polen
- ☐ Russland
- ☐ Anderes Land und zwar:

Welche Sprache sprichst du mit deinen Freunden?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Welche Sprache sprichst Du in Deiner Familie?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Denke an deine Klasse. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Deutsche und türkische Kinder reden und spielen miteinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Beschreibe deine Klasse:

In unserer Klasse halten alle zusammen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich fühle mich in meiner Klasse wohl.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ein anderes Kind sagt etwas Gemeines zu mir.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Denke an deine Freunde. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Personen werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Kreuze an, was stimmt:

Wie oft redest oder spielst du in der Schule mit türkischen Kindern?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du nachmittags mit türkischen Kindern?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Manche Kinder haben Freunde, deren Familie aus einem anderen Land stammt. Zum Beispiel haben manche Kinder Freunde, deren Familie aus der Türkei, Italien oder Polen stammt. Hast du auch solche Freunde?

Hast du Freunde, deren **Familie aus der Türkei** kommt?
Schreibe ihre Vornamen auf:

Hast du Freunde, deren **Familie aus einem anderen Land** als der Türkei kommt, zum Beispiel Griechenland oder Tschechien oder einem anderen Land?
Schreibe ihre Vornamen auf:

Hast du auch Freunde, deren **Familie aus Deutschland** kommt?
Schreibe ihre Vornamen auf:

Kreuze an, was stimmt:

Ich finde es spannend, jemanden kennen zu lernen, der ganz anders ist als ich.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich bin am liebsten mit Menschen zusammen, die mir ähnlich sind.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Kreuze an, was stimmt:

Weißt du, aus welchem Land die Familien deiner Klassenkameraden kommen?

☐ ja, bei allen ☐ bei den meisten ☐ bei einigen ☐ nein, bei keinem

Redest du mit deinen Freunden darüber, aus welchem Land jemand kommt?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie wichtig ist es dir, aus welchem Land jemand kommt?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Stell dir vor, du siehst, wie andere eine Mitschülerin beleidigen oder sich über sie lustig machen.

Kreuze an, was stimmt:

Die Mitschülerin tut mir leid.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Es macht mich wütend, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es gemein, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es ungerecht, andere so zu behandeln.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Stell dir vor, du siehst, wie eine Mitschülerin bei einem Spiel nicht mitmachen darf.

Kreuze an, was stimmt:

Die Mitschülerin tut mir leid.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Es macht mich wütend, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es gemein, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es ungerecht, andere so zu behandeln.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

E) Data-collection-2 questionnaire (version for boys)

Fragebogen

Zur Erinnerung:

In diesem Fragebogen geht es darum, was du denkst und erlebt hast.

Dies ist keine Klassenarbeit.

Es gibt keine richtigen oder falschen Antworten.

Es gibt keine Noten.

Bitte schau nicht, was andere machen.

Nur das, was **du** denkst, ist jetzt wichtig!

Schreibe nirgendwo deinen Namen hin.

Auf der Liste an der Tafel siehst du, dass jedes Kind aus deiner Klasse eine Nummer hat.

Neben wem möchtest du im Unterricht gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am liebsten sitzen möchtest. Verwende dazu die Nummern an der Tafel. Wähle nicht dich selbst!

21.Am liebsten möchte ich neben Nummer ☐ sitzen.

22.Am zweitliebsten möchte ich neben Nummer ☐ sitzen.

23.Am drittliebsten möchte ich neben Nummer ☐ sitzen.

24.Am viertliebsten möchte ich neben Nummer ☐ sitzen.

25.Am fünftliebsten möchte ich neben Nummer ☐ sitzen.

Neben wem möchtest du im Unterricht nicht so gern sitzen?

Bitte gib jetzt die fünf Kinder in deiner Klasse an, neben denen du im Unterricht am wenigsten gern sitzen möchtest. Verwende wieder die Nummern an der Tafel. Wähle nicht dich selbst!

21.Am wenigsten gern möchte ich neben Nummer ☐ sitzen.

22.Am zweitwenigsten möchte ich neben Nummer ☐ sitzen.

23.Am drittwenigsten möchte ich neben Nummer ☐ sitzen.

24.Am viertwenigsten möchte ich neben Nummer ☐ sitzen.

25.Am fünftwenigsten möchte ich neben Nummer ☐ sitzen.

Mit wem in deiner Klasse bist du befreundet?

Das heißt, mit wem triffst du dich am häufigsten nach der Schule? Gib bitte die Nummern an.

Am besten bin ich mit Nummer ☐ befreundet.

Am zweitbesten bin ich mit Nummer ☐ befreundet.

Am drittbesten bin ich mit Nummer ☐ befreundet.

Ich selbst bin Nummer ☐ .

In Deutschland leben neben Menschen, deren Familie schon immer in Deutschland gelebt hat, auch Menschen, deren Familie vor Jahren aus einem anderen Land (z.B. aus der Türkei oder Polen) nach Deutschland gekommen ist.

Bewerte bitte die folgenden Gruppen von Menschen, die in Deutschland leben.

Falls du aus manchen Gruppen niemanden kennst, bewerte die Gruppe trotzdem, so wie du denkst, dass sie ist! Kreuze die Gesichter an, die deiner Bewertung am besten entsprechen. **Kreuze in jedem Kasten nur ein Gesicht an.**

Deutsche mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Mädchen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Deutsche Jungen mag ich...


sehr gern


gerne


nicht so gerne


gar nicht gern

Kreuze wieder in jedem Kasten <u>das</u> Gesicht an, das dazu passt, was du denkst:

Türkische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Mädchen mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Türkische Jungen mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Italienische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Russische Menschen in Deutschland mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die aus einem anderen Land nach Deutschland kommen, mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Menschen, die eine andere Sprache als ich sprechen, mag ich…

sehr gern | gerne | nicht so gerne | gar nicht gern

Es gibt in Deutschland deutsche, türkische, italienische, polnische Kinder und Kinder aus anderen Ländern.

Was bist du? Schreibe es auf: ☐

Bist du froh, dass dies so ist?

☐ sehr froh ☐ froh ☐ nicht so froh ☐ gar nicht froh

Wie wichtig ist dir das?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Wie wichtig ist es dir, dass du ein Junge bist?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

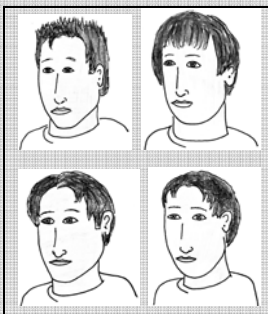
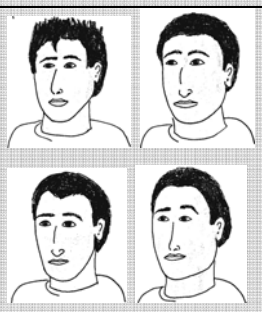
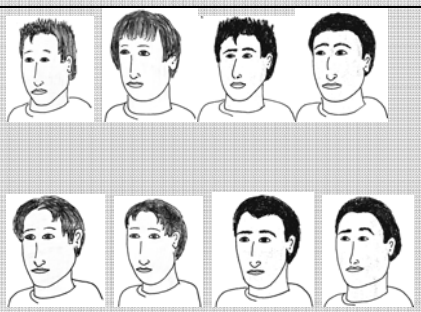
Dies ist eine Gruppe von Kindern, deren Familie aus Deutschland kommt:

Dies ist eine Gruppe von Kindern, deren Familie vor Jahren aus der Türkei nach Deutschland gekommen ist:

Gleich kommen einige Beschreibungen dazu, wie jemand sein kann. Du sollst jeweils ankreuzen, auf wen die Beschreibung passt.

Beispiel: Ein Schüler kreuzt folgendes an:

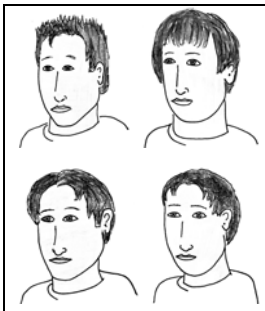
Manche Kinder **sind Naschkatzen** – sie lieben Schokolade und Bonbons. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	~~Auf die „deutschen“ **und** auf die „türkischen“ Kinder.~~	Auf keine der beiden Gruppen.

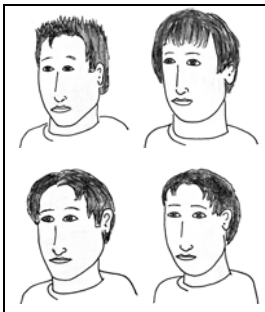
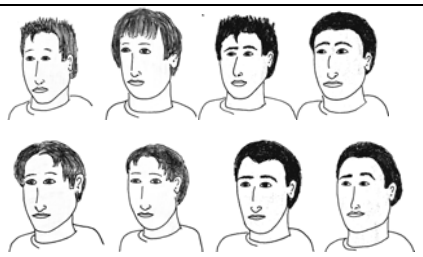
Der Schüler denkt also, dass sowohl die Kinder mit Familien aus Deutschland als auch die Kinder, deren Familie aus der Türkei nach Deutschland gekommen ist, gerne Schokolade und Bonbons mögen.

Jetzt bist du selbst an der Reihe. Bitte kreuze bei jeder der Beschreibungen auf den nächsten Seiten das an, was du denkst.

Manche Kinder sind **nett** – sie besuchen Kinder aus ihrer Klasse, wenn diese krank sind. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

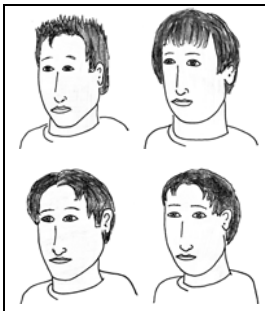
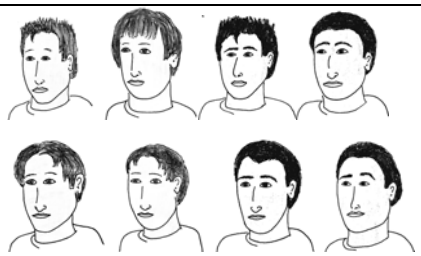
			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unehrlich** – sie sagen Dinge, die nicht stimmen und machen nicht, was sie versprochen haben. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

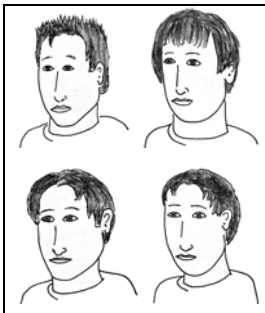
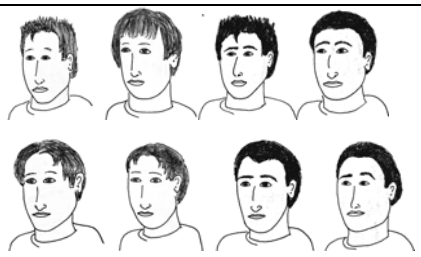
			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **gemein** – sie beschimpfen oder schlagen andere Kinder.

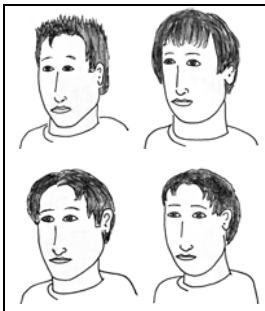
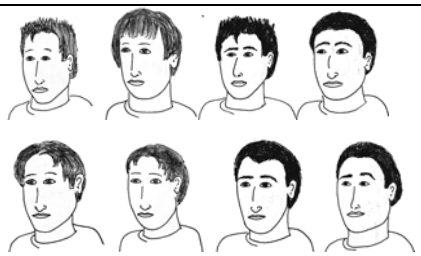
Was meinst du, auf wen trifft dies zu? Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

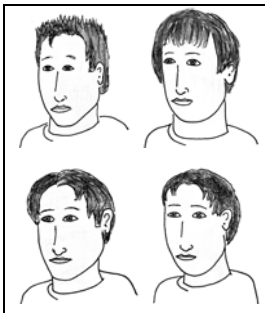
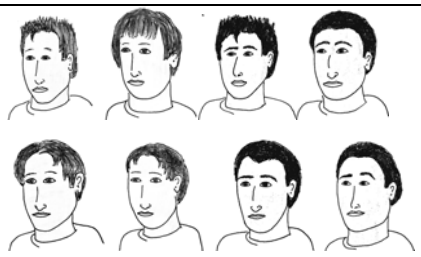
Manche Kinder sind **ordentlich** – sie räumen immer ihre Sachen und ihr Zimmer auf. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **unfreundlich** – sie schubsen andere herum und geraten mit anderen in Streit. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Manche Kinder sind **ehrlich** – sie halten, was sie versprechen und sagen nichts, was nicht stimmt. **Was meinst du, auf wen trifft dies zu?** Kreuze es an.

			
Auf die „deutschen“ Kinder.	Auf die „türkischen“ Kinder.	Auf die „deutschen“ **und** auf die „türkischen“ Kinder.	Auf keine der beiden Gruppen.

Ein Apfel  und eine Birne  unterscheiden sich in manchen Dingen. So ist der Apfel eher rund und die Birne länglich. Sie haben aber auch manche Dinge gemeinsam. Zum Beispiel kann man beide essen, beide haben einen Stiel, beide sind Obst und beide sind gesund.

So ist es mit vielen Dingen. Es gibt viele verschiedene Ähnlichkeiten und alle sind richtig auf ihre Art und Weise.

Auf der nächsten Seite siehst du immer vier Ähnlichkeiten zwischen zwei Dingen.

Du sollst dir immer **die** eine Ähnlichkeit aussuchen und ankreuzen, die du am wichtigsten findest.

Stell dir vor, du dürftest nur eine der Möglichkeiten wählen, um zu beschreiben, wie sich die beiden Dinge ähnlich sind – welche würdest du wählen?

Kreuze immer <u>die</u> Gemeinsamkeit an, die am besten passt!

Kümmere dich nicht darum, was Deine Klassenkameraden wählen!

Kreuze bei jeder Aufgabe nur <u>eine</u> Gemeinsamkeit an.

Salz und Zucker:

sind weiß	verwendet man im Essen	sind Gewürze	kann man leicht verwechseln

Stiefel und Sandalen:

gibt es in vielen Größen	schützen die Füße	sind Schuhe	können Blasen machen

Violine und Gitarre:

darauf kann man spielen	sind Musikinstrumente	damit muss man vorsichtig umgehen	haben Saiten

Sessel und Sofa:

haben vier Beine	darauf kann man sitzen	sind Möbel	sind bequem

Habicht und Adler:

machen anderen Tieren Angst	haben Federn	sind Vögel	fliegen

10-Cent-Stück und 5-Cent-Stück:

ist Geld	damit bezahlt man	Taschengeld	haben Sterne auf einer Seite

Metin, Demir, Murat, Timur und Mehmet sind Kinder, deren Großeltern aus der Türkei nach Deutschland gekommen sind. Lukas, Niklas, Marcel, Jan und Alexander sind Kinder, deren Familie schon immer in Deutschland gelebt hat.

Meinst du, die „türkischen“ (also **Metin, Demir, Murat, Timur** und **Mehmet**) und die „deutschen“ Kinder (also **Lukas, Niklas, Marcel, Jan** und **Alexander**) mögen dieselben Spiele?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder mögen dieselben Filme?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder haben dieselben Sorgen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Meinst du, die „türkischen“ und die „deutschen“ Kinder träumen von denselben Dingen?

☐ genau gleiche ☐ ähnliche ☐ nicht so ähnliche ☐ ganz andere

Ich habe dich ja letztes Jahr schon einmal befragt. Deine Antworten in diesem Fragebogen möchte ich mit den Antworten letztes Jahr vergleichen. Daher muss ich die beiden Fragebögen einander zuordnen können. Gib bitte als dein Zeichen wie im letzten Jahr fünf Buchstaben an, und zwar erst die ersten drei Buchstaben des Vornamens deiner Mutter und dann die ersten beiden Buchstaben deines Geburtsmonats.

Ein Beispiel:

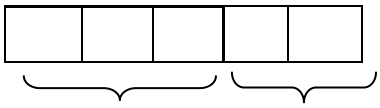
Die Mutter eines Kindes heißt mit Vornamen Marianne. Das Kind trägt in die ersten drei Felder ein M, ein A und ein R ein:

M	**A**	**R**		

Das Kind hat im Juli Geburtstag. Das Kind trägt daher in die anderen beiden Felder ein J und ein U ein.

M	**A**	**R**	**J**	**U**

Jetzt bist du an der Reihe. Bitte trage die Buchstaben in dein Zeichen ein:



Erste drei Buchstaben des Vornamens deiner Mutter

Erste beide Buchstaben deines Geburtsmonats

Wie alt bist du? ☐ Jahre

Was bist du? ☐ Junge ☐ Mädchen

Wo bist du geboren?

☐ Deutschland

☐ Türkei

☐ Italien

☐ Polen

☐ Russland

☐ Anderes Land und zwar:

Sind deine Eltern oder Großeltern aus einem anderen Land nach Deutschland gekommen?

☐ nein

☐ ja ⇨ Aus welchem Land sind deine Eltern oder Großeltern nach Deutschland gekommen?

- ☐ Türkei
- ☐ Italien
- ☐ Polen
- ☐ Russland
- ☐ Anderes Land und zwar:

Welche Sprache sprichst du mit deinen Freunden?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Welche Sprache sprichst Du in Deiner Familie?

☐ Deutsch ☐ Türkisch ☐ Polnisch ☐ Russisch

☐ Eine andere Sprache, und zwar

☐ Deutsch **und** eine andere Sprache, und zwar

Denke an deine Klasse. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Deutsche und türkische Kinder reden und spielen miteinander.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Kinder werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Beschreibe deine Klasse:

In unserer Klasse halten alle zusammen.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ich fühle mich in meiner Klasse wohl.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Ein anderes Kind sagt etwas Gemeines zu mir.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Denke an deine Freunde. Kreuze an, was stimmt:

Es werden Witze über türkische Menschen gemacht.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Türkische Personen werden beschimpft.

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Kreuze an, was stimmt:

Wie oft redest oder spielst du in der Schule mit türkischen Kindern?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie oft redest oder spielst du nachmittags mit türkischen Kindern?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Manche Kinder haben Freunde, deren Familie aus einem anderen Land stammt. Zum Beispiel haben manche Kinder Freunde, deren Familie aus der Türkei, Italien oder Polen stammt. Hast du auch solche Freunde?

Hast du Freunde, deren **Familie aus der Türkei** kommt?
Schreibe ihre Vornamen auf:

Hast du Freunde, deren **Familie aus einem anderen Land** als der Türkei kommt, zum Beispiel Griechenland oder Tschechien oder einem anderen Land?
Schreibe ihre Vornamen auf:

Hast du auch Freunde, deren **Familie aus Deutschland** kommt?
Schreibe ihre Vornamen auf:

Kreuze an, was stimmt:

Ich finde es spannend, jemanden kennen zu lernen, der ganz anders ist als ich.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich bin am liebsten mit Menschen zusammen, die mir ähnlich sind.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Kreuze an, was stimmt:

Weißt du, aus welchem Land die Familien deiner Klassenkameraden kommen?

☐ ja, bei allen ☐ bei den meisten ☐ bei einigen ☐ nein, bei keinem

Redest du mit deinen Freunden darüber, aus welchem Land jemand kommt?

☐ jeden Tag ☐ jede Woche ☐ jeden Monat ☐ ganz selten oder nie

Wie wichtig ist es dir, aus welchem Land jemand kommt?

☐ sehr wichtig ☐ wichtig ☐ nicht so wichtig ☐ gar nicht wichtig

Stell dir vor, du siehst, wie andere einen Mitschüler beleidigen oder sich über ihn lustig machen.

Kreuze an, was stimmt:

Der Mitschüler tut mir leid.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Es macht mich wütend, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es gemein, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es ungerecht, andere so zu behandeln.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Stell dir vor, du siehst, wie ein Mitschüler bei einem Spiel nicht mitmachen darf.

Kreuze an, was stimmt:

Der Mitschüler tut mir leid.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Es macht mich wütend, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es gemein, was die anderen tun.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

Ich finde es ungerecht, andere so zu behandeln.

☐ ganz bestimmt ☐ vielleicht ☐ eher nicht ☐ bestimmt nicht

11.4 Procedure, general instructions and additional explanations

Procedure – data collection 1

In data collection 1, all students in grades 3 and 5 whose parents had signed the letter of permission were surveyed in class. When the study and the questionnaire had been introduced and the concepts like attitude had been explained, the names of all children in class were noted on the blackboard by acclamation and numbered all the way through. Before the questionnaire was distributed, the general instruction was read to the respondents in order to prevent children's noting their names on the questionnaire or skipping through the questionnaire instead of listening. To facilitate comprehension, the questionnaire with all items, response options, instructions, and examples was read to the students. Children were allowed to ask questions of comprehension. For some items, additional information was provided. As far as there were different instructions for boys and girls due to gender-related formulations, both versions were read to the respondents and it was added which one was relevant for the boys and which for the girls.

General instructions – data collection 1

Good morning, my name is Tina Farhan. I work at the Philipps University Marburg in the working group social psychology. Social psychology studies what people think about others, which experiences they make with others, and how people belonging to different groups interact with each other. I'm interested how 3rd- to 6th-graders think about others and what they experience. That's why I am here today and brought a questionnaire for you. I am going to read the questionnaire to you. You will just have to choose one of the answers most of the time. First of all, I will note your names on the board and number them all the way through. I will explain to you what we need the names and numbers for in a few moments.

German:

Guten Morgen! Ich stelle mich euch erst einmal kurz vor: Mein Name ist Tina Farhan. Ich komme von der Universität in Marburg und arbeite in der Arbeitsgruppe Sozialpsychologie. Die Sozialpsychologie untersucht, was Menschen über andere denken, welche Erfahrungen sie miteinander machen und wie Menschen aus verschiedenen Gruppen miteinander umgehen. In meiner eigenen Arbeit geht es darum, wie das bei Schülern und Schülerinnen in der dritten bis sechsten Klasse ist. Und deshalb bin ich heute hier und habe euch einen Fragebogen mitgebracht. Der Fragebogen sieht ziemlich dick aus, aber ich werde euch die Fragen vorlesen und ihr müsst auch fast nichts selbst schreiben. Jetzt schreibe ich erst einmal die Namen aller Schüler und Schülerinnen in der Klasse an die Tafel. Ich erkläre euch dann gleich, wofür wir das brauchen.

Procedure – data collection 2

During data collection 2, the surveying also started with clarifying who had parental permission, with an introduction of the questionnaire (see appendix 11.4), with noting the children's names on the blackboard, and with reading the general instruction to the respondents. Then the questionnaire was distributed. First, the code and its purpose were explained. It was stressed that they had to decide for one of the response options to each question and choose the option that described best how they thought about the question. In the 6th-grade classes and those 4th-grade classes where the vast majority was good in reading and writing according to the teachers, the students worked through the questionnaire on their own starting with page 2. This was meant to avoid that children lost interest and motivation because they had to wait for slower classmates. In those few classes where a number of children had troubles with reading and writing, instructions, questions, and response options were read to the class. Participants were encouraged to ask questions of comprehension

whenever they were not completely sure if they had understood instructions and questions correctly.

General instructions – data collection 2

Good morning, my name is Tina Farhan. Maybe some of you remember that I was in your class with a questionnaire last year. I work at the Philipps University Marburg in the working group social psychology. Social psychologists study what people think about others, experience with others, and how people belonging to different groups interact with each other. I'm interested how this is in school students enrolled in grades 3 to 6 and what changes occur during one school year. That's why I am here again today with my questionnaire. First of all, I will note your names on the board and number them all the way through. I will explain to you what we need the names and numbers for afterwards.

German:

Guten Morgen. Ich stelle mich euch erst einmal vor: Mein Name ist Tina Farhan. Vielleicht erinnert ihr euch noch, dass ich euch letztes Jahr schon einmal befragt habe. Ich arbeite in der Arbeitsgruppe Sozialpsychologie an der Universität Marburg. Sozialpsychologen untersuchen, was Menschen über andere denken, welche Erfahrungen sie miteinander machen und wie Menschen aus verschiedenen Gruppen miteinander umgehen. Mich interessiert, wie das bei Schülern und Schülerinnen in der dritten bis sechsten Klasse ist und was sich im Lauf eines Jahres verändert. Und deshalb bin ich heute wieder mit meinem Fragebogen hier. Jetzt schreibe ich erst einmal die Namen aller Schüler und Schülerinnen in der Klasse an die Tafel. Ich erkläre euch dann gleich, wofür wir das brauchen.

Additional explanations

- Anonymous means that you are not expected to put your name on the questionnaire. The study is about the ways students of your age typically perceive things. It's not about the opinion of Clara Müller from [city or district].

  German:

  Anonym heißt, dass ihr nicht euren Namen auf den Fragebogen schreiben sollt. Es geht darum, was Schüler und Schülerinnen in eurem Alter denken und nicht darum was Clara Müller aus [Stadt / Stadtteil] so denkt.

- Your attitude is what you think about the different topics. You are not expected to try and find the correct answer. Just answer what comes to your mind first.

  German:

  Eure Meinung ist das, was ihr so denkt. Es geht nicht darum, die richtige Antwort zu finden! Antwortet einfach, was euch zuerst einfällt.

- It's important that you do not copy from your desk-mate or discuss the responses – I'm interested in your own opinion and not in a mixture of your and your desk-mates' opinion.

  German:

  Es ist wichtig, dass ihr nicht schaut, was euer Nachbar ankreuzt – ich will eure persönliche Meinung und keine Mischung aus dem, was ihr selbst und was euer Sitznachbar denkt!

- I need your own number as well to check if your choices are mutual or not. With the numbers, I can see if number 50 chose number 60 as well when number 60 chose number 50. But I will not know who number 50 and number 60 are. I will not be able to guess who filled in the questionnaire based on the numbers because I have no copy of the list on the board.

  German:

  Eure eigene Nummer an der Tafel brauche ich, um zu schauen, ob ihr euch wechselseitig gewählt habt oder nicht. Wenn ich die Nummern habe, kann ich sehen, ob Nummer 50 Nummer 60 auch gewählt hat, wenn Nummer 60 Nummer 50 aufgeschrieben hat. Ich weiß aber nicht, wer Nummer 50 und Nummer 60 sind. Ich kann nicht erraten, wer den Fragebogen ausgefüllt hat, weil ich von der Liste an der Tafel keine Kopie habe.

- When you are asked “What are you?” you can also give answers like “Turkish-German” or “Greek-Italian-Spanish”. [This was important mainly for children from mixed cultural background and bi-national parents to ensure that all children find it easy to self-categorize into an ethnic group]

  German:

  Bei der Frage “Was bist du?” könnt ihr auch Antworten wie deutsch-türkisch oder griechisch-italienisch-spanisch geben.

11.5 Characteristics of the participating schools

The seven schools participating in data collection 1 are located in different towns or city districts but are similar in the extra-curricular programs:

School 1 is located in one of the districts of a large Hessian city and provides programs for improving immigrant students' knowledge of the German language, conflict-mediator trainings, supervision and help with the homework, and lessons in the mother-tongue of the largest immigrant group. Students are encouraged to cooperate and help each other.

School 2 is located in a medium-sized Hessian city and values teaching tolerance through fostering cooperation and through projects against racism. The different cultural backgrounds of the students are appreciated in learning projects, school parties, and by paying attention to Islamic holidays. The school also offers supervision and help for homework.

School 3 also is located in a medium-sized city. The headmaster of school 3 reported that students with immigration background are well-integrated and have frequent contact with their schoolmates without immigrant background. The majority of the immigrant children are from Europe and the US. The school offers courses in German as second language.

School 4 is located in a district of a large Hessian city and offers lessons in mother-tongue in two languages, conflict mediator trainings, and supervision and help with homework.

School 5 is located in a medium-sized Hessian city and self-defines as a multicultural school. Multi-cultural school parties are organized frequently. The teachers foster cooperation between the students. There are also courses for improving knowledge of the German language for immigrant mothers.

School 6 is located in a district of a large Hessian city and provides additional courses in the German language for immigrant students, conflict mediator trainings, integrative lessons, mother-tongue lessons in one language, trainings in reading abilities, courses for improving

immigrant parents' knowledge of the German language, and supervision for homework in the afternoon.

School 7 is located in a small Hessian city and offers courses to foster reading and language abilities and courses in German as second language. The headmaster reported that the relations between students with different cultural background at school are harmonious and there are frequent interactions. But according to the headmaster parents of immigrant children typically report that their children do not have contact with schoolmates with German or other immigrant backgrounds in leisure time.

A look at the statistics for the Hessian population in general, elementary school students, and the cities or city districts in which the schools are located is informative with regard to generalisation of the empirical results. In the school term 2005 / 2006 there were 246 578 students enrolled in elementary school grades 1 to 4 and 29 149 students in elementary school grades 5 and 6 (www.statistik-hessen.de). From the elementary school students, 14% had a foreign citizenship. Table 8 shows that the percentage of inhabitants with a foreign citizenship is relatively high in most of the schools' cities or city districts compared to Hessen in general. In addition, most schools have programs fostering harmonious intergroup relations. That is why the empirical results might not apply to schools with a very low percentage of immigrant students or without programs meant to improve intergroup relations.

Table 8. Percentage of inhabitants with a foreign citizenship for Hessen and the cities or city districts in which the seven schools are located.

	Inhabitants	Inhabitants with foreign citizenship	Foreign citizens: % per country (largest groups)	6- to 14-year-olds: % foreign citizens
Hessen	6 092 000*	12%*	25% Turkish* 9% Italian* 6% Serbia-Montenegro* 5% Polish*	
School 1	27 000*	22%*	20% Turkish + 13% West-European + (mainly Italian)	25%*
School 2	120 000*	26%*	23% Turkish + 14% Italian +	35%*
School 3	80 000*	14%*		13%*
School 4	17 000 +	28% +	25% Turkish + 20% West-European + (mainly Italian)	
School 5	60 000*	24%*		30%*
School 6	12 000 +	20% +	33% Turkish + 20% West European +	
School 7	20 000*	9%*		12%*

Note. Sources: * Hessisches Landesamt für Statistik (www.statistik-hessen.de; December, 31st 2005); + homepage of the city or city district

11.6 Characteristics of the sample

Table 9. Class sizes, number of participants who did not take part due to lack of parental permission, lack of interest, or because they were missing, and duration of the surveying (data collection 1 / data collection 2).

School	Class	Class size	No parental permission	No interest in participation	Missing due to illness, other courses, etc.	Duration in minutes
1	1	24	0 / 0	0 / 0	0 / 2	50 / 40
	2	25	2 / 2	3 / 0	0 / 0	65 / 47
2	1	29 / 20	4 / 1	0 / 0	0 / 6	45 / 40
	2	30 / 20	5 / 2	0 / 0	0 / 0	45 / 35
	3	29	4 / 4	2 / 0	0 / 0	45 / 35
	4	29	1 / 1	0 / 0	0 / 13	55 / 30
	5	0 / 19	- / 3	- / 0	- / 2	- / 40
3	1	25	3 / 3	3 / 0	0 / 0	45 / 35
	2	24	1 / 1	0 / 0	0 / 0	40 / 34
	3	25	3 / 3	0 / 0	0 / 0	43 / 36
	4	23 / 26	2 / 5 (3 new)	0 / 0	0 / 0	45 / 35
4	1	18	0 / 0	0 / 0	0 / 1	40 / 37
	2	19	5 / 0	0 / 1	5 / 5	45 / 44
	3	25	0 / 0	0 / 0	0 / 5	41 / 39
	4	25	0 / 0	4 / 0	0 / 4	45 / 43
	5	25	6 / 6	0 / 0	10 / 1	45 / 40

Table 9 (continued). Class sizes, number of participants who did not take part due to lack of parental permission, lack of interest, or because they were missing, and duration of the surveying (data collection 1 / data collection 2).

School	Class	Class size	No parental permission	No interest in participation	Missing due to illness, other courses, etc.	Duration in minutes
5	1	23	0 / 0	0 / 0	0 / 3	42 / 42
	2	22	0 / 0	0 / 0	0 / 2	44 / 35
	3	23	3 / 0	6 / 0	5 / 3	45 / 40
	4	21/ 25	0 / 4 (new)	0 / 0	0 / 0	43 / 38
	5	24	0 / 0	0 / 0	0 / 4	45 / 41
	6	24	0 / 0	0 / 1	0 / 0	45 / 43
7	1	20	0 / 0	0 / 0	0 / 0	43 / 45
	2	20	0 / 0	0 / 0	0 / 1	40 / 35
	3	22	1 / 1	0 / 0	0 / 0	41 / 40
	4	21	0 / 0	4 / 0	0 / 0	44 / 45
	5	22	3 / 3	0 / 0	5 / 0	45 / 40

Table 10. Sample sizes at data collections 1 and 2.

Data collection	Total sample	Gender	Grades	Age
1	531	258 male	287 grade 3	8 to 14 years
		270 female	244 grade 5	
2	537	277 male	295 grade 4	9 to 15 years
		261 female	246 grade 6	

Table 11. Categories and frequencies for countries of origin based on data-collection-1 (t1) and data-collection-2 data (t2).

Cluster	Associated countries of origin		N	%
German	German (no immigration background)	t1	193	36
		t2	206	38
Turkish	Turkish	t1	72	14
		t2	84	16
East European	Polish, Russian, Albanian, Romanian, Slovakian,	t1	46	9
	Lithuanian, Uzbek, Serbian, Bosnian, Croatian,	t2	57	11
Immigrated	students self-categorizing as Germans whose	t1	38	7
Germans	parents or grandparents immigrated to Germany	t2	42	8
Arabian	Moroccan, Tunisian, Iraqi, Syrian, Egyptian,	t1	31	6
	Arabian	t2	34	6
West European	Italian, Greek, Spanish, Austrian, Portuguese	t1	23	4
		t2	22	4
Turkish-	Turkish-German, German-Turkish	t1	14	3
German		t2	4	1
West Asian,	Pakistani, Indian, Bengali, Iranian, Tamil,	t1	8	2
Asian	Chinese, Vietnamese	t2	13	3
African	Eritrean, Ghanaian, Nigerian	t1	3	1
		t2	3	1
American	North American, Columbian, Chilean	t1	4	1
		t2	2	0
miscellaneous	Caribbean, Middle East, dual identified (e.g.	t1	99	19
	Moroccan-French), multiple identified	t2	70	13

From the 531 respondents at data collection 1 and the 537 respondents at data collection 2, only 287 responses could be matched based on the code. The matching was done class-wise for the six schools separately. As there were a lot of questions regarding the code in both data collections it could be assumed that respondents made mistakes when filling in the code. That is why an extensive search for additional matches was started. The five-letter codes indicated by the respondents in the two data collections were compared class-wise for each school. Due to the limited abilities in spelling in elementary school children, it seemed very likely that students spelled their mother's name differently at the two data collections. Therefore codes with the same two letters representing the child's month of birth and similar but slightly different letters referring to their mother's given name were treated as potential matches. In addition, codes in the same class with the same three letters representing the mother's given name but different letters representing the child's month of birth were treated as possible matches because a substantial number of participants seemed to be confused if they were expected to fill in their own or their mother's month of birth. Therefore they might have filled in their own month of birth in one questionnaire and their mother's in the other. For all potential matches, gender, age, country of origin, handwriting in the open questions, and names listed as friends were compared. The codes from data collection 2 were changed into those from data collection 1 for those children for whom it was extremely likely that the similar codes referred to the same respondent. With this procedure 375 of the 537 respondents in data collection 2 could be matched with data collection 1.

There were 143 matched data-sets for respondents without immigration background but obviously two respondents in class 4 at school 2 per chance had the same code – the code referred to a female child in grade 5 and to a male child in grade 6. The case was excluded from analysis which leaves 142 cases (n = 82 male, n = 60 female; grade 3 / 4: n = 78, grade 5 / 6: n = 64; mean age = 10.0, SD = 1.3 at data collection 1).

Table 12. Longitudinal sub-sample.

	Total	Without immigration background	Turkish immigration background	other immigration background
Matched based on code	287	123	27	137
Matched based on code and search	375	143	36	196

Note. Students categorized as "without immigration background" were born in Germany as were their parents and grandparents. The only language spoken in their families was German.

11.7 Missing values, potential outliers, and indicators of normal distribution

Systematically missing values pose a problem for generalising the insights drawn based on the results. If the missing values are unsystematic, up to 5% missing values are unproblematic in case of a sufficient sample size (Tabachnik & Fidell, 2001). At data collection 1, the split in the general vs. socio-cognitive items in the 3rd-grade classes caused missing values in these items. The limited time available for the surveying led to a comparably high number of missing values in items located at the end of the questionnaire. There were fewer missing values in data collection 2 compared to data collection 1. At data collection 2, most of the respondents omitted only very few items which were mainly located near the questionnaire's end. As missing values seem due to time restrictions or motivation loss it is unlikely that the missingness is related to respondents' attitudes. Therefore only those respondents with more than 5% missing values were omitted from analysis. Analyses were done either with complete cases (listwise deletion) or with EM-estimates replacing missing data. EM-estimation was done with the Missing Value Analysis tool of SPSS 12. Missing values were estimated based on the available ones in the most important variables (dislike of the different groups of origin, ingroup identification, frequency of contact, number of friends listed for the different groups of origin, and descriptive norm). For the indirect concepts – the best friends' attitudes and their number of outgroup friends – there was no replacement of missing values by EM-estimates. Friends' data were missing if a nominated friend did not take part in the questionnaire or did not indicate his or her number in the sociometric task. It does not seem to be appropriate to estimate data for these friends as there is no information known about the friends besides the school and class affiliation.

Table 13. Amount of missing values for respondents without immigration background.

Data collection	Less than 5% missing values	More than 5% missing values (omitted)
1	176	17
2	192	14

Means and standard deviations as well as methods like regression, analysis of variance, and t-test based on square sums are easily biased by outliers (McClelland, 2000). Tabachnik and Fidell (2001) suggest to view cases with z-values larger than 3.29 as potential univariate outliers in continuous variables. Potential univariate outliers occurred in the ratings of dislike for the ingroup, in three items of the social-cognitive measure empathic perspective taking, in one of the items assessing ingroup identification (glad), in the friendship lists, and in the sociometric choices (see table 14). The friendship lists were recoded because only few children had named a high number of friends and these extreme numbers might bias analyses of contact effects. Responses indicating that the respondent had listed more than three Turkish friends were subsumed under the score 4. For the listed immigrant friends from other countries than Turkey, numbers of six or more names were subsumed under the score 6. As there were more German friends listed due to availability and / or other causes, the friendship lists were recoded from nine friends upward. There were no potential univariate outliers in the recoded friendship lists.

Table 14. Items with potential univariate outliers based on data collections 1 (t1) and 2 (t2).

	Potential outliers (t1)	Potential outliers (t2)
Dislike of Germans	Z up to 3.28; N = 191	$Z_{\text{case } 206}$ = 4.6; N = 206
Empathic perspective taking (sympathy situation 1)		$Z_{\text{case \# 49, 78, 101, 194}}$ = 3.3; N = 202
Empathic perspective taking (unjust situation 1)		$Z_{\text{case \# 35, 52, 88, 121}}$ = 3.7; N = 201
Empathic perspective taking (unjust situation 2)		$Z_{\text{case \# 29, 39, 52, 73, 206}}$ = 3.4; N = 201
Ethnic ingroup identification (glad)	$Z_{\text{case \# 66, 89}}$ = 4.2, N = 192	$Z_{\text{case \# 100, 118}}$ = 4.1; N = 201
Number of Turkish friends	$Z_{\text{case \# 65}}$ = 3.5; $Z_{\text{case \# 43 and 44}}$ = 4.9; N = 179	$Z_{\text{case \# 51, 204}}$ = 3.8; N = 201
Number of other immigrant friends	$Z_{\text{case \# 9}}$ = 3.7; $Z_{\text{case \# 102}}$ = 5.0; N = 174	$Z_{\text{case \# 204}}$ = 3.4; $Z_{\text{case \# 122}}$ = 5.1; N = 201
Number of German friends	$Z_{\text{case \# 78}}$ = 4.7; $Z_{\text{case \# 74}}$ = 5.1; N = 170	$Z_{\text{case \# 96}}$ = 3.3; $Z_{\text{case \# 143}}$ = 4.0; $Z_{\text{case \# 82, 99}}$ = 4.3; N = 196
Number of Turkish classmates indicated best friends in class	$Z_{\text{case \# 164, 170}}$ = 4.30; N = 193	$Z_{\text{case \#178}}$ = 5.8; N = 206
Number of Italian classmates indicated best friends in class	$Z_{\text{case \# 46, 48, 132, 156}}$ = 5.7; N = 193	$Z_{\text{case \# 16, 17, 23, 24.26, 109, 113, 115, 116, 152, 153, 166}}$ = 4.0; N = 206

Table 14 (continued). Items with potential univariate outliers based on data collections 1 (t1) and 2 (t2).

	Potential outliers (t1)	Potential outliers (t2)
Number of Russian classmates indicated as best friends in class	18 times Z = 3.1; $N = 193$	$Z_{case\ \#\ 179,\ 180,\ 185} = 5.6$; $N = 206$
Number of Arabian classmates indicated as best friends in class	$Z_{case\ \#\ 15,\ 17,\ 18,\ 37,\ 67,\ 135,\ 141,\ 142,\ 149} = 4.5$; $N = 193$	$Z_{case\ \#\ 20} = 6.5$; $N = 206$
Number of other immigrant classmates indicated as best friends in class	$Z_{case\ \#\ 161} = 3.6$; $N = 193$	
Number of Turkish classmates indicated as most preferred desk-mates	$Z_{case\ \#\ 163} = 4.1$; $N = 193$	$Z_{case\ \#\ 19,\ 176} = 4.6$; $N = 206$
Number of Italian classmates indicated as most preferred desk-mates	$Z_{case\ \#\ 41,\ 43,\ 48,\ 49,\ 132,\ 156} = 4.2$, $Z_{case\ \#\ 46} = 6.5$; $N = 193$	$Z_{case\ \#\ 24} = 5.7$, $Z_{case\ \#\ 17} = 8.6$; $N = 206$
Number of Russian classmates indicated as five most preferred desk-mates	$Z_{case\ \#\ 8,\ 174,\ 175,\ 180} = 3.2$, $Z_{case\ \#\ 183} = 6.9$; $N = 193$	$Z_{case\ \#\ 179,\ 180,\ 185} = 4.9$; $N = 206$
Number of Arabian classmates indicated as most preferred desk-mates	$Z_{case\ \#\ 135,\ 139} = 4.0$, $Z_{case\ \#\ 136,\ 138} = 6.1$; $N = 193$	

Table 14 (continued). Items with potential univariate outliers based on data collections 1 (t1) and 2 (t2).

	Potential outliers (t1)	Potential outliers (t2)
Number of other immigrant classmates indicated as most preferred desk-mates	$Z_{\text{case \# 10, 160, 161}} = 3.4$; $N = 193$	$Z_{\text{case \# 119}} = 3.5$; $N = 206$
Number of non-Turkish immigrants indicated as most preferred desk-mates	$Z_{\text{case \# 8, 41, 160}} = 2.9$; $N = 193$	
Number of Turkish classmates indicated as least preferred desk-mates		$Z_{\text{case \# 148}} = 4.5$; $N = 206$
Number of Italian classmates indicated as least preferred desk-mates	$Z_{\text{case \# 45, 46}} = 6.2$; $N = 193$	$Z_{\text{case \# 1, 16, 17, 19, 22, 23, 26, 109, 110, 111, 150, 154, 156}} = 3.3$, $Z_{\text{case \# 15}} = 6.9$; $N = 206$
Number of Russian classmates indicated as least preferred desk-mates	$Z_{\text{case \# 178, 181}} = 4.1$; $N = 193$	$Z_{\text{case \# 177, 182, 183, 184, 191, 196, 203}} = 3.5$, $Z_{\text{case \# 181}} = 5.4$; $N = 206$
Number of Arabian classmates indicated as least preferred desk-mates	$Z_{\text{case \# 135, 141}} = 4.5$; $N = 193$	$Z_{\text{case \# 158, 159, 160, 161}} = 4.4$; $N = 206$
Number of non-Turkish immigrants indicated as least preferred desk-mates	$Z_{\text{case \# 144}} = 3.2$; $N = 193$	

In case of a normal distribution *Kurtosis* (describes how observations are grouped around a central point) and *Skewness* (asymmetry of a distribution) have the value 0 (Tabachnik & Fidell, 2001). Even though a meaningful deviation from symmetry can already be assumed if the *Skewness* has twice the quantity of its standard deviation (Tabachnik & Fidell, 2001), simulation studies showed that *Skewness* scores up to 2 and *Kurtosis* scores up to 7 do not bias maximum likelihood data (West, Finch, & Curran, 1995). Most items had unproblematic or at least acceptable *Skewness* and *Kurtosis* scores in the data-collection-1 and data-collection-2 data (see table 15). Severe deviations from normal distribution occurred in the original friendship lists for the number of Turkish friends. The recoded numbers of friends had acceptable *Skewness* and *Kurtosis* scores. With regard to the sociometric choices there were severely skewed distributions especially for those target groups that are not available in some of the schools or constitute a small ethnic minority. The sociometric choices were therefore only used to identify friends' attitudes and numbers of friends.

Table 15. Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Dislike of Germans	t1	0.86 (0.18)	-0.68 (0.35)	191
	t2	1.18 (0.17)	1.33 (0.34)	206
Dislike of Turkish immigrants	t1	0.21 (0.18)	-0.55 (0.35)	192
	t2	0.13 (0.17)	-0.34 (0.34)	205
Dislike of Russian immigrants	t1	0.15 (0.18)	-0.75 (0.35)	192
	t2	0.23 (0.17)	0.61 (0.34)	205
Dislike of Italian immigrants	t1	0.47 (0.18)	-0.53 (0.35)	192
	t2	0.63 (0.17)	0.52 (0.34)	202
Dislike of people immigrating	t1	0.44 (0.18)	0.25 (0.35)	193
	t2	0.27 (0.17)	0.14 (0.34)	204
Dislike of people speaking another	t1	0.17 (0.18)	-0.44 (0.35)	193
language	t2	0.11 (0.17)	-0.34 (0.34)	203
Intergroup similarity (preferred	t1	0.61 (0.21)	0.31 (0.41)	139
games)	t2	0.55 (0.17)	0.31 (0.34)	205
Intergroup similarity (preferred films)	t1	0.23 (0.21)	-0.78 (0.41)	137
	t2	-0.16 (0.17)	-0.62 (0.34)	205
Intergroup similarity (sorrows)	t1	-0.33 (0.21)	-0.80 (0.41)	138
	t2	-0.18 (0.17)	-1.14 (0.34)	206
Intergroup similarity (dreams)	t1	-0.63 (0.21)	-0.71 (0.41)	137
	t2	-0.33 (0.17)	-1.09 (0.34)	206
Empathic perspective taking	t1			
(sympathy situation 1)	t2	1.10 (0.17)	0.86 (0.34)	202

Table 15 (continued). Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Empathic perspective taking (anger situation 1)	t1			
	t2	0.90 (0.17)	0.25 (0.34)	201
Empathic perspective taking (mean situation 1)	t1			
	t2	1.27 (0.17)	1.23 (0.34)	201
Empathic perspective taking (unjust situation 1)	t1			
	t2	1.69 (0.17)	2.59 (0.34)	201
Empathic perspective taking (sympathy situation 2)	t1			
	t2	1.08 (0.17)	0.92 (0.34)	201
Empathic perspective taking (anger situation 2)	t1			
	t2	0.77 (0.17)	-0.06 (0.34)	201
Empathic perspective taking (mean situation 2)	t1			
	t2	1.11 (0.17)	0.94 (0.34)	201
Empathic perspective taking (unjust situation 2)	t1			
	t2	1.35 (0.17)	1.62 (0.34)	201
Ingroup identification (ethnic ingroup: glad)	t1	1.75 (0.18)	2.84 (0.35)	192
	t2	1.35 (0.17)	1.88 (0.34)	201
Ingroup identification (ethnic ingroup: important)	t1	1.09 (0.18)	0.19 (0.35)	191
	t2	0.61 (0.17)	-0.58 (0.34)	201
Ingroup identification (gender ingroup: important)	t1	1.58 (0.18)	1.33 (0.35)	193
	t2	1.40 (0.17)	0.78 (0.34)	205
Descriptive norm (jokes by friends)	t1	-1.48 (0.18)	0.71 (0.35)	188
	t2	-1.57 (0.17)	1.04 (0.34)	205

Table 15 (continued). Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Descriptive norm (insults by friends)	t1	-1.02 (0.18)	-0.54 (0.35)	189
	t2	-1.14 (0.17)	-0.20 (0.34)	203
Descriptive norm (jokes in class)	t1	-1.71 (0.18)	1.44 (0.35)	192
	t2	-1.89 (0.17)	2.03 (0.34)	205
Descriptive norm (insults in class)	t1	-0.89 (0.18)	-0.82 (0.35)	188
	t2	-0.82 (0.17)	-0.94 (0.34)	203
Number of Turkish friends	t1	2.00 (0.18)	5.87 (0.36)	179
	t2	1.31 (0.17)	1.61 (0.34)	201
Number of other immigrant friends	t1	1.42 (0.18)	3.47 (0.37)	174
	t2	1.36 (0.17)	3.26 (0.34)	201
Number of German friends	t1	1.63 (0.19)	5.82 (0.37)	170
	t2	1.90 (0.17)	4.73 (0.34)	196
Number of Turkish friends (recoded)	t1	0.76 (0.18)	-0.52 (0.36)	179
	t2	0.88 (0.17)	-0.42 (0.34)	201
Number of other immigrant friends	t1	0.33 (0.18)	-1.24 (0.37)	174
(recoded)	t2	-0.02 (0.17)	-1.29 (0.34)	201
Number of German friends (recoded)	t1	-0.98 (0.19)	0.69 (0.37)	170
	t2	-0.96 (0.17)	0.71 (0.34)	196
Frequency of contact with Turkish	t1	0.07 (0.18)	-1.78 (0.36)	181
immigrants (at school)	t2	-0.07 (0.17)	-1.77 (0.34)	206
Frequency of contact with Turkish	t1	-1.22 (0.18)	-0.06 (0.36)	179
immigrants (in the leisure time)	t2	-1.21 (0.17)	-0.08 (0.34)	206

Table 15 (continued). Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Social climate in class (cohesion)	t1	-0.04 (0.18)	-1.63 (0.35)	191
	t2	0.34 (0.17)	-1.52 (0.34)	200
Social climate in class (wellbeing)	t1	1.11 (0.18)	-0.32 (0.35)	191
	t2	1.22 (0.17)	0.11 (0.34)	203
Social climate in class (being insulted)	t1	-0.55 (0.18)	-1.32 (0.35)	191
	t2	-0.52 (0.17)	-1.37 (0.34)	202
Sociometric choices (three best friends	t1	0.10 (0.18)	-0.89 (0.35)	193
in class: German)	t2	0.02 (0.17)	-0.88 (0.34)	206
Sociometric choices (three best friends	t1	1.99 (0.18)	3.10 (0.35)	193
in class: Turkish)	t2	2.99 (0.17)	8.48 (0.34)	206
Sociometric choices (three best friends	t1	4.64 (0.18)	21.76 (0.35)	193
in class: Italian)	t2	3.80 (0.17)	12.56 (0.34)	206
Sociometric choices (three best friends	t1	2.82 (0.18)	6.01 (0.35)	193
in class: Russian)	t2	3.77 (0.17)	14.70 (0.34)	206
Sociometric choices (three best friends	t1	4.33 (0.18)	16.96 (0.35)	193
in class: Arabian)	t2	3.63 (0.17)	13.42 (0.34)	206
Sociometric choices (three best friends	t1	1.34 (0.18)	0.67 (0.35)	193
in class: other immigrants)	t2	0.57 (0.17)	-0.51 (0.34)	206
Sociometric choices (three best friends	t1	0.76 (0.18)	-0.11 (0.35)	193
in class: non-Turkish immigrants)	t2	0.28 (0.17)	-0.59 (0.34)	206
Sociometric choices (three best friends	t1	0.58 (0.18)	-0.38 (0.35)	193
in class: immigrants in general)	t2	0.18 (0.17)	-0.70 (0.34)	206

Table 15 (continued). Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Sociometric choices (five most	t1	0.23 (0.18)	-0.45 (0.35)	193
preferred desk-mates: German)	t2	-0.19 (0.17)	-0.44 (0.34)	206
Sociometric choices (five most	t1	1.43 (0.18)	1.37 (0.35)	193
preferred desk-mates: Turkish)	t2	1.97 (0.17)	4.11 (0.34)	206
Sociometric choices (five most	t1	4.08 (0.18)	17.09 (0.35)	193
preferred desk-mates: Italian)	t2	5.18 (0.17)	32.77 (0.34)	206
Sociometric choices (five most	t1	2.86 (0.18)	12.20 (0.35)	193
preferred desk-mates: Russian)	t2	2.96 (0.17)	9.06 (0.34)	206
Sociometric choices (five most	t1	3.69 (0.18)	16.01 (0.35)	193
preferred desk-mates: Arabian)	t2	2.08 (0.17)	2.35 (0.34)	206
Sociometric choices (five most	t1	1.18 (0.18)	1.05 (0.35)	193
preferred desk-mates: other)	t2	0.81 (0.17)	0.52 (0.34)	206
Sociometric choices (five most	t1	0.53 (0.18)	-0.22 (0.35)	193
preferred desk-mates: non-Turkish)	t2	0.27 (0.17)	-0.31 (0.34)	206
Sociometric choices (five most	t1	0.39 (0.18)	-0.20 (0.35)	193
preferred desk-mates: immigrant)	t2	0.17 (0.17)	-0.49 (0.34)	206
Sociometric choices (five least	t1	0.35 (0.18)	-0.58 (0.35)	193
preferred desk-mates: German)	t2	0.35 (0.17)	-0.72 (0.34)	206
Sociometric choices (five least	t1	0.93 (0.18)	0.01 (0.35)	193
preferred desk-mates: Turkish)	t2	1.28 (0.17)	1.44 (0.34)	206
Sociometric choices (five least	t1	4.03 (0.18)	17.13 (0.35)	193
preferred desk-mates: Italian)	t2	3.98 (0.17)	16.48 (0.34)	206

Table 15 (continued). Skewness and Kurtosis scores based on data collections 1 (t1) and 2 (t2).

		Skewness (*SD*)	*Kurtosis* (*SD*)	*N*
Sociometric choices (five least	t1	1.80 (0.18)	2.21 (0.35)	193
preferred desk-mates: Russian)	t2	2.67 (0.17)	7.32 (0.34)	206
Sociometric choices (five least	t1	2.15 (0.18)	4.54 (0.35)	193
preferred desk-mates: Arabian)	t2	2.36 (0.17)	6.34 (0.34)	206
Sociometric choices (five least	t1	0.76 (0.18)	-0.19 (0.35)	193
preferred desk-mates: other)	t2	0.46 (0.17)	-0.71 (0.34)	206
Sociometric choices (five least	t1	0.37 (0.18)	-0.20 (0.35)	193
preferred desk-mates: non-Turkish)	t2	0.13 (0.17)	-0.55 (0.34)	206
Sociometric choices (five least	t1	0.02 (0.18)	-0.92 (0.35)	193
preferred desk-mates: immigrants)	t2	0.03 (0.17)	-0.90 (0.34)	206
Preference for interaction partners	t1			
(openness for the new and different)	t2	0.89 (0.17)	0.40 (0.34)	203
Preference for interaction partners	t1			
(prefer similar others)	t2	0.56 (0.17)	-0.41 (0.34)	203
Salience of others' country of origin	t1			
(knowing others' country of origin)	t2	0.27 (0.17)	-0.61 (0.34)	202
Salience of others' country of origin	t1			
(talk about others' country of origin)	t2	-1.67 (0.17)	1.52 (0.34)	203
Salience of others' country of origin	t1			
(importance of others' origin)	t2	-0.58 (0.17)	-0.37 (0.34)	203

11.8 Scale Formation: Factor analyses and internal consistencies

Items were combined into scales where this was possible and meaningful. Items were included in the respective scale if *corrected item-scale correlation* was at least .30 (see Diehl & Staufenbiel, 2001). A Factor Analysis suggested one scale for ratings of dislike of the ingroup and one for ratings of dislike for outgroups (see table 16). The internal consistency *Cronbach Alpha* as well as the *corrected-item-scale correlations* of a scale combining the ratings of dislike for the different outgroups would be sufficiently high in almost all age groups and (sub-)samples (see table 26). Nevertheless, analyzing attitudes toward Turkish people separately has clear advantages for interpreting the results because a number of predictor variables refer explicitly to Turkish immigrants who constitute the largest immigrant group in Germany. In addition, it seems to be problematic to combine the two non-group-specific ratings of dislike with the group-specific ones referring to Turkish, Italian and Russian immigrants because the items are on different levels of abstraction. Therefore the items assessing respondents' dislike of Germans and Turkish immigrants were used as single indicators and the two items referring to people coming to Germany from another country and people speaking another language were used as an index of dislike of immigrants in general (these two items were correlated to $r = .53$, $N = 193$, $p < .001$ at data collection 1 and to $r = .52$, $N = 202$, $p < .001$ at data collection 2). The results of the Factor Analyses and the analyses of internal consistency point to problems with the intended MRA-scales (see tables 17 and 26). As a result, the MRA was not used in the analyses presented in manuscripts 1 and 2. The formation of the respective scales was supported by the Factor Analyses and the internal consistencies as well as *corrected-item-scale correlations* for the items meant to assess empathic perspective taking, perceived descriptive norm, and intergroup similarity (see tables 23 to 25 and table 26). But not all scores were satisfying for intergroup similarity in the longitudinal sub-sample. The items meant to assess perceived

intergroup similarity had acceptable internal consistency scores at data collection 2 but were problematic at data collection 1. Therefore only perceived intergroup similarity assessed at data collection 2 was used (see manuscript 2). The expected one-factorial structure of the Likhetsrelationer 2 was not supported by Factor Analyses for a version with 15 or 10 items (see tables 18 and 19). Internal consistency *Cronbach Alpha* for a scale with six items of the Likhetsrelationer 2 was between .50 and .68 and the *corrected item-scale correlations* were too low for a number of items especially in the longitudinal sub-sample (see table 26). A 5-item scale had acceptable internal consistencies and *corrected-item-scale correlations* in the data-collection-1 and data-collection-2 data but the indices were problematic in the longitudinal sub-sample (see table 26). Therefore the Likhetsrelationer 2 was only used in cross-sectional analyses with the data-collection-2 data (see manuscript 1). The correlations between the two items referring to ethnic ingroup identification and between the two items referring to frequency of intergroup contact were lower than expected for items assessing the same construct (see table 26). The items meant to assess the importance of others' ethnicity as well as those referring to preferred similarity or difference of interaction partners could not be used as a scale and were not included in the analyses (see table 26).

Table 16. Varimax-rotated Component Matrix of a Principle Component analysis of the six dislike-rating items based on data collections 1 (t1; *N* = 188) and 2 (t2; *N* = 199).

Dislike of …		Factor loadings	
		1	2
Germans	t1	-.01	.94
	t2	-.03	.95
Turkish people living in Germany	t1	.72	.02
	t2	.78	-.11
Italian people living in Germany	t1	.70	-.08
	t2	.59	.35
Russian people living in Germany	t1	.63	.02
	t2	.64	.12
People coming to Germany from another country	t1	.76	.28
	t2	.83	.00
People speaking a different language	t1	.59	.41
	t2	.70	-.03

Table 17. Varimax-rotated Component Matrix of a Principle Component analysis of the six MRA items based on data collections 1 (t1; *N* = 182) and 2 (t2; *N* = 199).

Multiresponse Racial Attitude Measure		Factor loadings	
		1	2
MRA^{+} nice	t1	-.09	.67
	t2	.63	
MRA^{-} dishonest	t1	.71	.08
	t2	.74	
MRA^{-} mean	t1	.75	.04
	t2	.65	
MRA^{+} neat	t1	.23	.74
	t2	.54	
MRA^{-} unfriendly	t1	.71	.26
	t2	.81	
MRA^{+} honest	t1	.32	.65
	t2	.65	

Table 18. Varimax-rotated Component Matrix of a Principle Component analysis of the 15 Likhetsrelationer 2 items based on data-collection-1 data (N = 121).

Likhetsrelationer 2	Factor loadings				
	1	2	3	4	5
Item 1	.26	.50	-.30	.43	.37
Item 2	.40	.39	.10	-.03	-.05
Item 3	-.17	.71	.14	.37	-.07
Item 4	.10	.06	.10	.78	.11
Item 5	.31	.35	.13	.01	.11
Item 6	.58	.21	-.27	.15	.18
Item 7	.42	.05	.23	.50	-.10
Item 8	.48	.26	.28	-.33	.44
Item 9	.76	.05	.16	.15	-.00
Item 10	.19	.00	.58	.18	.03
Item 11	.55	.10	.37	-.03	-.04
Item 12	.65	.09	-.19	.22	.18
Item 13	.22	.74	.00	-.08	.03
Item 14	.05	-.03	.18	.10	.89
Item 15	-.10	.17	.75	.02	.24

Table 19. Varimax-rotated Component Matrix of a Principle Component analysis with 10 items of the Likhetsrelationer 2 based on data-collection-1 data (*N* = 121).

Likhetsrelationer 2	Factor loadings	
	1	2
Item 1	.77	.05
Item 2	.38	.33
Item 5	.17	.51
Item 6	.75	.11
Item 7	.32	.36
Item 8	.18	.64
Item 9	.38	.61
Item 11	-.01	.78
Item 12	.63	.28
Item 13	.43	.30

Table 20. Component Matrix of a Principle Component analysis with six items of the Likhetsrelationer 2 based on data-collection-1 data (*N* = 125).

Likhetsrelationer 2	Factor loadings
Item 5	.48
Item 6	.62
Item 7	.58
Item 9	.77
Item 11	.56
Item 12	.68

Table 21. Varimax-rotated Component Matrix of a Principle Component analysis of the Likhetsrelationer 2 items based on data-collection-2 data (*N* = 197).

Likhetsrelationer 2	Factor loadings	
	1	2
Item 1 (5)	-.13	.81
Item 2 (6)	.34	.69
Item 3 (7)	.71	.34
Item 4 (9)	.69	.06
Item 5 (11)	.53	.35
Item 6 (12)	.77	-.19

Table 22. Component Matrix of a principle component analysis with 5 items of the Likhetsrelationer 2 based on data-collection-2 data (*N* = 198).

Likhetsrelationer 2	Factor loadings
Item 6	.59
Item 7	.80
Item 9	.65
Item 11	.63
Item 12	.61

Table 23. Component Matrix of a Principle Component analysis of the four items assessing perceived intergroup similarity based on data collections 1 (t1; *N* = 136) and 2 (t2; *N* = 204).

Perceived similarity between children of German and Turkish origin		Factor loadings
Preferred games	t1	.66
	t2	.63
Preferred films	t1	.73
	t2	.70
Sorrows	t1	.61
	t2	.78
Dreams	t1	.77
	t2	.79

Table 24. Component Matrix of a Principle Component analysis of the eight items assessing self-reported empathic reactions to situation 1 and 2 based on data-collection-2 data (N = 201).

Self-reported empathic reactions	Factor loadings
Sympathy with the victim (1)	.68
Anger at the culprits (1)	.76
Perceive as mean (1)	.85
Perceive as unjust (1)	.74
Sympathy with the victim (2)	.80
Anger at the culprits (2)	.72
Perceive as mean (2)	.85
Perceive as unjust (2)	.83

Table 25. Component Matrix of a Principle Component analysis of the descriptive social norm items based on data collections 1 (t1; N = 183) and 2 (t2; N = 199).

Perceived frequency of negative peer behaviour toward Turkish people		Factor loadings
Jokes (class)	t1	.83
	t2	.73
Insults (class)	t1	.83
	t2	.77
Jokes (friends)	t1	.83
	t2	.82
Insults (friends)	t1	.85
	t2	.87

Table 26. Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Cronbach Alpha (Ratings of dislike for the ingroup and the different outgroups)	Total t1	.70 (*N* = 188)		.69 (*N* = 124)
	Total t2		.70 (*N* = 199)	.70 (*N* = 122)
	Grade 3	.73 (*N* = 105)		.73 (*N* = 65)
	Grade 4		.73 (*N* = 115)	.72 (*N* = 64)
	Grade 5	.65 (*N* = 83)		.64 (*N* = 59)
	Grade 6		.64 (*N* = 84)	.66 (*N* = 58)
Corrected item-scale correlations (Scale dislike)		**German**	**German**	**German**
	Total t1	.15		.11
	Total t2		.04	.06
	Grade 3	.06		.02
	Grade 4		.01	-.05
	Grade 5	.29		.25
	Grade 6		.10	.19
		Turkish	**Turkish**	**Turkish**
	Total t1	.48		.46
	Total t2		.55	.55
	Grade 3	.57		.61
	Grade 4		.63	.64
	Grade 5	.38		.31
	Grade 6		.39	.42

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Italian**	**Italian**	**Italian**
scale	Total t1	.44		.40
correlations	Total t2		.46	.50
(Scale dislike)	Grade 3	.49		.46
	Grade 4		.51	.59
	Grade 5	.37		.35
	Grade 6		.35	.37
		Russian	**Russian**	**Russian**
	Total t1	.41		.48
	Total t2		.44	.41
	Grade 3	.45		.47
	Grade 4		.46	.44
	Grade 5	.37		.51
	Grade 6		.38	.37

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale dislike)		**Immigrating**	**Immigrating**	**Immigrating**
	Total t1	.62		.63
	Total t2		.64	.65
	Grade 3	.65		.64
	Grade 4		.64	.68
	Grade 5	.60		.62
	Grade 6		.63	.60
		Language	**Language**	**Language**
	Total t1	.47		.44
	Total t2		.47	.44
	Grade 3	.56		.59
	Grade 4		.49	.43
	Grade 5	.32		.24
	Grade 6		.46	.47
Cronbach Alpha (Ratings of dislike for the different outgroups)	Total t1	.72 (*N* = 190)		.72 (*N* = 124)
	Total t2		.75 (*N* = 199)	.74 (*N* = 122)
	Grade 3	.77 (*N* = 105)		.78 (*N* = 65)
	Grade 4		.78 (*N* = 115)	.78 (*N* = 64)
	Grade 5	.65 (*N* = 85)		.63 (*N* = 59)
	Grade 6		.69 (*N* = 84)	.67 (*N* = 58)

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale dislike of outgroups)		**Turkish**	**Turkish**	**Turkish**
	Total t1	.50		.46
	Total t2		.59	.56
	Grade 3	.58		.59
	Grade 4		.65	.65
	Grade 5	.43		.34
	Grade 6		.44	.46
		Italian	**Italian**	**Italian**
	Total t1	.46		.42
	Total t2		.44	.49
	Grade 3	.51		.50
	Grade 4		.50	.62
	Grade 5	.39		.35
	Grade 6		.31	.32

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale dislike of outgroups)		**Russian**	**Russian**	**Russian**
	Total t1	.42		.49
	Total t2		.46	.40
	Grade 3	.48		.50
	Grade 4		.48	.44
	Grade 5	.34		.48
	Grade 6		.40	.35
		Immigrating	**Immigrating**	**Immigrating**
	Total t1	.61		.62
	Total t2		.66	.68
	Grade 3	.63		.63
	Grade 4		.68	.73
	Grade 5	.59		.62
	Grade 6		.61	.60

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale dislike of outgroups)		**Language**	**Language**	**Language**
	Total t1	.46		.43
	Total t2		.48	.46
	Grade 3	.56		.59
	Grade 4		.48	.43
	Grade 5	.31		.20
	Grade 6		.51	.51
Cronbach Alpha (MRA: nice, neat, honest)	Total t1	.51 (*N* = 185)		.48 (*N* = 127)
	Total t2		.58 (*N* = 201)	.57 (*N* = 126)
	Grade 3	.48 (*N* = 104)		.44 (*N* = 68)
	Grade 4		.50 (*N* = 117)	.49 (*N* = 67)
	Grade 5	.54 (*N* = 81)		.52 (*N* = 59)
	Grade 6		.68 (*N* = 84)	.68 (*N* = 59)
Corrected item-scale correlations (Scale MRA +)		**Nice**	**Nice**	**Nice**
	Total t1	.19		.20
	Total t2		.32	.27
	Grade 3	.21		.20
	Grade 4		.28	.17
	Grade 5	.17		.23
	Grade 6		.37	.39

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Neat**	**Neat**	**Neat**
scale	Total t1	.42		.33
correlations	Total t2		.35	.34
(Scale MRA +)	Grade 3	.37		.25
	Grade 4		.26	.26
	Grade 5	.49		.43
	Grade 6		.49	.49
		Honest	**Honest**	**Honest**
	Total t1	.38		.38
	Total t2		.50	.56
	Grade 3	.34		.38
	Grade 4		.41	.53
	Grade 5	.43		.37
	Grade 6		.64	.60
Correlation	Total t1	.45*** (187)		.38*** (127)
MRA: neat,	Total t2		.40*** (203)	.46*** (126)
honest	Grade 3	.38** (106)		.31* (68)
	Grade 4		.30** (118)	.43*** (67)
	Grade 5	.53*** (81)		.43** (59)
	Grade 6		.58*** (85)	.53*** (59)

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Cronbach Alpha (MRA: mean, unfriendly, dishonest)	Total t1	.62 (*N* = 185)		.57 (*N* = 126)
	Total t2		.73 (*N* = 201)	.75 (*N* = 127)
	Grade 3	.56 (*N* = 104)		.45 (*N* = 67)
	Grade 4		.71 (*N* = 116)	.69 (*N* = 68)
	Grade 5	.66 (*N* = 81)		.63 (*N* = 59)
	Grade 6		.76 (*N* = 85)	.80 (*N* = 59)
Corrected item-scale correlations: scale MRA –		**Mean**	**Mean**	**Mean**
	Total t1	.42		.36
	Total t2		.49	.57
	Grade 3	.45		.35
	Grade 4		.46	.45
	Grade 5	.39		.36
	Grade 6		.54	.65
		Unfriendly	**Unfriendly**	**Unfriendly**
	Total t1	.47		.42
	Total t2		.53	.50
	Grade 3	.32		.13
	Grade 4		.51	.59
	Grade 5	.63		.64
	Grade 6		.55	.54

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Dishonest**	**Dishonest**	**Dishonest**
scale	Total t1	.38		.36
correlations:	Total t2		.65	.68
scale MRA –	Grade 3	.35		.36
	Grade 4		.63	.48
	Grade 5	.41		.34
	Grade 6		.69	.76
Cronbach Alpha	Total t1	.67 (*N* = 125)		.59 (*N* = 83)
Likhetsrelationer	Total t2		.63 (*N* = 197)	.61 (*N* = 123)
2 (6 items)	Grade 3	.68 (*N* = 50)		.50 (*N* = 29)
	Grade 4		.61 (*N* = 114)	.58 (*N* = 65)
	Grade 5	.66 (*N* = 75)		.64 (*N* = 54)
	Grade 6		.62 (*N* = 83)	.62 (*N* = 58)
Corrected item-		**Salt + sugar**	**Salt + sugar**	**Salt + sugar**
scale	Total t1	.29		.21
correlations	Total t2		.16	.11
(Likhets-	Grade 3	.32		.14
relationer 2; 6	Grade 4		.04	-.06
items)	Grade 5	.31		.26
	Grade 6		.33	.38

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 6 items)		**Boots + sandals**	**Boots + sandals**	**Boots + sandals**
	Total t1	.38		.40
	Total t2		.41	.36
	Grade 3	.38		.32
	Grade 4		.42	.42
	Grade 5	.37		.44
	Grade 6		.37	.27
		Violin + guitar	**Violin + guitar**	**Violin + guitar**
	Total t1	.37		.29
	Total t2		.55	.43
	Grade 3	.39		.25
	Grade 4		.56	.44
	Grade 5	.36		.31
	Grade 6		.49	.38

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 6 items)		**Armchair + sofa**	**Armchair + sofa**	**Armchair + sofa**
	Total t1	.57		.49
	Total t2		.37	.33
	Grade 3	.58		.45
	Grade 4		.32	.26
	Grade 5	.56		.51
	Grade 6		.38	.37
		Hawk + eagle	**Hawk + eagle**	**Hawk + eagle**
	Total t1	.36		.27
	Total t2		.40	.48
	Grade 3	.37		.13
	Grade 4		.36	.51
	Grade 5	.34		.34
	Grade 6		.45	.43

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 6 items)		**10 + 5 Cent**	**10 + 5 Cent**	**10 + 5 Cent**
	Total t1	.45		.34
	Total t2		.33	.39
	Grade 3	.47		.28
	Grade 4		.44	.45
	Grade 5	.46		.39
	Grade 6		.14	.26
Cronbach Alpha Likhetsrelationer 2 (5 items)	Total t1	.62 (*N* = 126)		.55 (*N* = 83)
	Total t2		.65 (*N* = 198)	.65 (*N* = 123)
	Grade 3	.63 (*N* = 50)		.45 (*N* = 29)
	Grade 4		.67 (*N* = 115)	.68 (*N* = 65)
	Grade 5	.62 (*N* = 75)		.59 (*N* = 54)
	Grade 6		.58 (*N* = 83)	.56 (*N* = 58)

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 5 items)		**Boots + sandals**	**Boots + sandals**	**Boots + sandals**
	Total t1	.30		.21
	Total t2		.34	.29
	Grade 3	.34		.16
	Grade 4		.36	.38
	Grade 5	.31		.26
	Grade 6		.28	.17
		Violin + guitar	**Violin + guitar**	**Violin + guitar**
	Total t1	.33		.33
	Total t2		.58	.49
	Grade 3	.28		.18
	Grade 4		.61	.50
	Grade 5	.36		.41
	Grade 6		.48	.41

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 5 items)		**Armchair + sofa**	**Armchair + sofa**	**Armchair + sofa**
	Total t1	.34		.26
	Total t2		.40	.39
	Grade 3	.33		.21
	Grade 4		.36	.34
	Grade 5	.35		.27
	Grade 6		.41	.42
		Hawk + eagle	**Hawk + eagle**	**Hawk + eagle**
	Total t1	.54		.47
	Total t2		.39	.44
	Grade 3	.58		.43
	Grade 4		.38	.51
	Grade 5	.51		.48
	Grade 6		.39	.33

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Likhets-relationer 2; 5 items)		**10 + 5 Cent**	**10 + 5 Cent**	**10 + 5 Cent**
	Total t1	.38		.31
	Total t2		.38	.43
	Grade 3	.40		.22
	Grade 4		.48	.50
	Grade 5	.35		.35
	Grade 6		.21	.28
Cronbach Alpha *P*erceived intergroup similarity (4 items)	Total t1	.64 (*N* = 136)		.58 (*N* = 94)
	Total t2		.71 (*N* = 204)	.72 (*N* = 126)
	Grade 3	.68 (*N* = 55)		.58 (*N* = 37)
	Grade 4		.63 (*N* = 120)	.63 (*N* = 67)
	Grade 5	.59 (*N* = 81)		.57 (*N* = 57)
	Grade 6		.78 (*N* = 84)	.78 (*N* = 59)
Corrected item-scale correlations (Scale intergroup similarity)		**Games**	**Games**	**Games**
	Total t1	.38		.37
	Total t2		.39	.40
	Grade 3	.46		.40
	Grade 4		.30	.31
	Grade 5	.30		.33
	Grade 6		.51	.49

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Films**	**Films**	**Films**
scale	Total t1	.45		.37
correlations	Total t2		.46	.50
*(*Scale	Grade 3	.44		.30
intergroup	Grade 4		.34	.37
similarity)	Grade 5	.44		.41
	Grade 6		.60	.61
		Sorrows	**Sorrows**	**Sorrows**
	Total t1	.35		.25
	Total t2		.56	.56
	Grade 3	.40		.25
	Grade 4		.51	.50
	Grade 5	.29		.23
	Grade 6		.60	.60

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Dreams**	**Dreams**	**Dreams**
scale	Total t1	.51		.49
correlations	Total t2		.58	.59
*(*Scale	Grade 3	.54		.54
intergroup	Grade 4		.52	.50
similarity)	Grade 5	.47		.44
	Grade 6		.63	.66
Cronbach Alpha	Total t2		.91 (*N* = 201)	.89 (*N* = 125)
Empathic per-	Grade 4		.89 (*N* = 116)	.87 (*N* = 66)
spective taking	Grade 6		.92 (*N* = 85)	.91 (*N* = 59)
Corrected item-			**Insult (pity)**	**Insult (pity)**
scale	Total t2		.59	.53
correlations	Grade 4		.55	.45
(Scale empathic	Grade 6		.64	.57
perspective			**Insult (anger)**	**Insult (anger)**
taking)	Total t2		.68	.65
	Grade 4		.61	.55
	Grade 6		.77	.72

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale empathic perspective taking)			**Insult (mean)**	**Insult (mean)**
	Total t2		.78	.77
	Grade 4		.77	.74
	Grade 6		.81	.80
			Insult (unfair)	**Insult (unfair)**
	Total t2		.65	.63
	Grade 4		.66	.62
	Grade 6		.61	.61
			Exclusion (pity)	**Exclusion (pity)**
	Total t2		.73	.76
	Grade 4		.70	.78
	Grade 6		.75	.74
			Exclusion (anger)	**Exclusion (anger)**
	Total t2		.63	.59
	Grade 4		.59	.55
	Grade 6		.71	.68

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; [t] indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale empathic perspective taking)	Total t2		.79	.77
	Grade 4		.77	.76
	Grade 6		.71	.77
			Exclusion (unfair)	**Exclusion (unfair)**
	Total t2		.75	.73
	Grade 4		.72	.69
	Grade 6		.79	.77
Correlation ingroup identification glad / important	Total t1	.44*** (191)		.39*** (126)
	Total t2		.32*** (201)	.31*** (127)
	Grade 3	.44*** (107)		.38** (67)
	Grade 4		.36*** (118)	.47*** (68)
	Grade 5	.44*** (84)		.41** (59)
	Grade 6		.27* (83)	.17 (59)

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Cronbach Alpha	Total t1	.85 (*N* = 183)		.85 (*N* = 120)
Descriptive	Total t2		.81 (*N* = 199)	.82 (*N* = 124)
norm (4 items)	Grade 3	.82 (*N* = 101)		.85 (*N* = 64)
	Grade 4		.80 (*N* = 115)	.85 (*N* = 66)
	Grade 5	.87 (*N* = 82)		.85 (*N* = 56)
	Grade 6		.82 (*N* = 84)	.80 (*N* = 58)
Corrected item-		**Jokes (class)**	**Jokes (class)**	**Jokes (class)**
scale	Total t1	.68		.71
correlations	Total t2		.54	.56
(Scale	Grade 3	.60		.68
descriptive	Grade 4		.52	.59
norm)	Grade 5	.73		.72
	Grade 6		.56	.57
		Insults (class)	**Insults (class)**	**Insults (class)**
	Total t1	.72		.69
	Total t2		.59	.65
	Grade 3	.75		.81
	Grade 4		.61	.69
	Grade 5	.69		.62
	Grade 6		.59	.60

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-		**Jokes (friends)**	**Jokes (friends)**	**Jokes (friends)**
scale	Total t1	.69		.68
correlations	Total t2		.64	.65
(Scale	Grade 3	.66		.65
descriptive	Grade 4		.59	.68
norm)	Grade 5	.69		.69
	Grade 6		.69	.63
		Insults (friends)	**Insults (friends)**	**Insults (friends)**
	Total t1	.69		.70
	Total t2		.73	.74
	Grade 3	.56		.61
	Grade 4		.75	.82
	Grade 5	.76		.75
	Grade 6		.72	.68

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Correlation intergroup contact at school / in the leisure time	Total t1	.31*** (178)		.31** (119)
	Total t2		.47*** (206)	.50*** (127)
	Grade 3	.23* (102)		.35** (64)
	Grade 4		.49*** (121)	.56*** (68)
	Grade 5	.34** (76)		.25^{t} (55)
	Grade 6		.45*** (85)	.43** (59)
Correlation interaction part-ners (2 items)	Total t2		.06 (*N* = 203)	.15^{t} (*N* = 127)
	Grade 4		-.02 (*N* = 118)	.06 (*N* = 68)
	Grade 6		.23* (*N* = 85)	.29* (*N* = 59)
Cronbach Alpha Others' ethnicity (3 items)	Total t2		.34 (*N* = 202)	.28 (*N* = 127)
	Grade 4		.33 (*N* = 117)	.30 (*N* = 68)
	Grade 6		.35 (*N* = 85)	.27 (*N* = 59)

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

Table 26 (continued). Internal consistency of the scales for grades 3 to 6 at data collections 1 and 2 and in the longitudinal sub-sample.

		Data collection 1	Data collection 2	Longitudinal sub-sample
Corrected item-scale correlations (Scale salience of others' ethnicity)			**Knowledge**	**Knowledge**
	Total t2		.21	.18
	Grade 4		.24	.19
	Grade 6		.16	.17
			Talk about	**Talk about**
	Total t2		.20	.15
	Grade 4		.14	.13
	Grade 6		.28	.19
			Important	**Important**
	Total t2		.18	.14
	Grade 4		.18	.20
	Grade 6		.17	.10

Note. *** indicates p< .001; ** indicates p< .01; * indicates p< .05; ^{t} indicates p< .10.

11.9 Descriptive results

Tables 27 and 28 show the descriptive results based on the two data collections (table 27) and the longitudinal sub-sample (table 28). The response options were 1 (*very much*) to 4 (*not at all*) for ratings of dislike, 4 (*completely the same*) to 1 (*completely different*) for perceived intergroup similarity, 1 (*definitely not*) to 4 (*for sure*) for empathic perspective taking, 1 (*not glad at all*) to 4 (*very glad*) and 1 (*not important at all*) to 4 (*very important*) for ingroup identification, 1 (*very seldom or never*) to 4 (*every day*) for perceived negative peer behaviour, 1 (*very seldom or never*) to 4 (*every day*) for frequency of contact, 1 (*very seldom or never*) to 4 (*every day*) for social relations in class, 1 (*for sure*) to 4 (*definitely not*) for preferred similarity of interaction partners to the self, 1 (*yes, for all*) to 4 (*no, for none of them*) for knowledge about classmates' country of origin, 1 (*every day*) to 4 (*very seldom or never*) for frequency of talks about others' country of origin, and 1 (*very important*) to 4 (*not important at all*) for importance of others' country of origin. General cognitive developmental stage according to Piaget includes the stages pre-operational (1), concrete operational 1 (2), concrete operational 2 (3), and formal operational (4).

Table 27. Descriptive results based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Dislike of Germans	t1	1.36	0.49	1 to 3	179
	t2	1.41	0.57	1 to 4	206
Dislike of Turkish people	t1	2.50	0.84	1 to 4	180
living in Germany	t2	2.56	0.74	1 to 4	205
Dislike of Italian people	t1	2.21	0.91	1 to 4	180
living in Germany	t2	2.05	0.75	1 to 4	202
Dislike of Russian people	t1	2.44	0.90	1 to 4	180
living in Germany	t2	2.44	0.87	1 to 4	205
Dislike of people coming	t1	2.19	0.74	1 to 4	181
to Germany from another	t2	2.25	0.67	1 to 4	204
country					
Dislike of people speaking	t1	2.37	0.82	1 to 4	181
another language	t2	2.33	0.77	1 to 4	203
Dislike of immigrants in	t1	2.28	0.68	1 to 4	181
general (scale)	t2	2.29	0.62	1 to 4	205
General Piaget stage	t1	2.92	1.30	1 to 4	98
(6 items)	t2	3.12	1.20		154
General Piaget stage	t1	3.01	1.25	1 to 4	102
(5 items)	t2	3.37	1.06		152

Table 27 (continued). Descriptive results based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Perceived similarity between German and Turkish children (scale)	t1	2.25	0.59	1 to 4	130
	t2	2.30	0.64		206
Empathic perspective taking (scale)	t2	3.35	0.60	1.50 to 4	201
Identification with the ethnic ingroup (glad)	t1	3.64	0.63	1 to 4	180
	t2	3.56	0.62	1 to 4	201
Identification with the ethnic ingroup (important)	t1	3.30	0.90	1 to 4	179
	t2	3.16	0.85	1 to 4	201
Identification with the gender ingroup (important)	t1	3.54	0.80	1 to 4	181
	t2	3.43	0.90	1 to 4	204
Perceived frequency of negative peer behaviour toward Turkish children in class (scale)	t1	1.67	.94	1 to 4	180
	t2	1.66	.88	1 to 4	206
Perceived frequency of negative peer behaviour toward Turkish children by friends (scale)	t1	1.66	.93	1 to 4	177
	t2	1.63	.92	1 to 4	205

Table 27 (continued). Descriptive results based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Perceived frequency of negative peer behaviour toward Turkish children: Scale class / friends	t1	1.67	.87	1 to 4	176
	t2	1.65	.82	1 to 4	205
Number of Turkish friends listed	t1	1.08	1.43	0 to 8	169
	t2	1.08	1.31	0 to 6	201
Number of immigrant friends listed	t1	1.40	1.46	0 to 9	164
	t2	1.96	1.79	0 to 11	201
Number of German friends listed	t1	3.89	2.39	0 to 16	160
	t2	4.46	3.16	0 to 18	196
Number of Turkish friends listed (recoded)	t1	1.00	1.16	0 to 4	169
	t2	1.04	1.19	0 to 4	201
Number of immigrant friends listed (recoded)	t1	1.38	1.36	0 to 6	164
	t2	1.91	1.63	0 to 6	201
Number of German friends listed (recoded)	t1	3.79	2.04	0 to 9	160
	t2	4.08	2.14	0 to 9	196
Frequency of contact at school	t1	2.49	1.34	1 to 4	171
	t2	2.42	1.33	1 to 4	206
Frequency of contact in leisure time	t1	1.64	1.03	1 to 4	168
	t2	1.68	1.05	1 to 4	206
Perceived social climate in class: Cohesion	t1	2.41	1.24	1 to 4	179
	t2	2.72	1.24	1 to 4	200

Table 27 (continued). Descriptive results based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Perceived social climate in class: Wellbeing	t1	3.22	1.11	1 to 4	179
	t2	3.28	1.04	1 to 4	203
Perceived social climate in class: Being insulted	t1	2.07	1.19	1 to 4	179
	t2	2.06	1.20	1 to 4	202
Exciting to get to know someone completely different than oneself	t2	1.82	.82	1 to 4	203
Prefer to be together with similar others	t2	1.96	.86	1 to 4	203
Knowing where classmates come from	t2	2.00	.77	1 to 4	202
Talk about others' country of origin with friends	t2	3.57	.81	1 to 4	203
Importance of others' country of origin	t2	3.01	.87	1 to 4	203

Table 28. Descriptive results from the longitudinal sub-sample based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Dislike of Germans	t1	1.37	0.50	1 to 3	142
	t2	1.39	0.52	1 to 3	142
Dislike of Turkish people	t1	2.47	0.81	1 to 4	141
living in Germany	t2	2.56	0.73	1 to 4	142
Dislike of Italian people	t1	2.17	0.87	1 to 4	141
living in Germany	t2	2.13	0.72	1 to 4	139
Dislike of Russian people	t1	2.39	0.88	1 to 4	141
living in Germany	t2	2.41	0.88	1 to 4	142
Dislike of people coming	t1	2.15	0.70	1 to 4	142
to Germany from another	t2	2.26	0.64	1 to 4	142
country					
Dislike of people speaking	t1	2.32	0.81	1 to 4	142
another language	t2	2.34	0.75	1 to 4	140
Dislike of immigrants in	t1	2.32	0.66	1 to 4	142
general (scale)	t2	2.31	0.60	1 to 4	142
General Piaget stage	t1	2.70	1.36	1 to 4	70
(6 items)	t2	3.09	1.20	1 to 4	108
General Piaget stage	t1	3.10	1.22	1 to 4	79
(5 items)	t2	3.31	1.09	1 to 4	105
Perceived intergroup	t1	2.28	0.59	1 to 4	105
similarity (scale)	t2	2.29	0.61	1 to 3.50	142

Table 28 (continued). Descriptive results from the longitudinal sub-sample based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Identification with the	t1	3.63	0.66	1 to 4	142
ethnic ingroup (glad)	t2	3.55	0.64	1 to 4	141
Identification with the	t1	3.28	0.90	1 to 4	141
ethnic ingroup (important)	t2	3.16	0.85	1 to 4	141
Identification with the	t1	3.47	0.86	1 to 4	142
gender ingroup (important)	t2	3.42	0.88	1 to 4	142
Perceived frequency of	t1	1.60	.90	1 to 4	141
negative peer behaviour	t2	1.65	.90	1 to 4	142
toward Turkish children in class (scale)					
Perceived frequency of	t1	1.60	.90	1 to 4	140
negative peer behaviour	t2	1.64	.91	1 to 4	142
toward Turkish children by friends (scale)					
Perceived frequency of	t1	1.61	.82	1 to 4	139
negative peer behaviour	t2	1.65	.82	1 to 4	142
toward Turkish children: Scale class / friends					
Number of Turkish friends	t1	0.99	1.26	0 to 8	135
listed	t2	1.14	1.35	0 to 6	139

Table 28 (continued). Descriptive results from the longitudinal sub-sample based on data collections 1 (t1) and 2 (t2).

		Mean	*Standard deviation*	Range	*N*
Number of immigrant friends listed	t1	1.49	1.50	0 to 9	132
	t2	2.03	1.84	0 to 11	139
Number of German friends listed	t1	3.91	2.46	0 to 16	127
	t2	4.66	3.28	0 to 18	136
Number of Turkish friends listed (recoded)	t1	0.94	1.08	0 to 4	135
	t2	1.09	1.23	0 to 4	139
Number of immigrant friends listed (recoded)	t1	1.46	1.38	0 to 6	132
	t2	1.96	1.63	0 to 6	139
Number of German friends listed (recoded)	t1	3.80	2.05	0 to 9	127
	t2	4.22	2.19	0 to 8	136
Frequency of contact at school	t1	2.55	1.35	1 to 4	134
	t2	2.46	1.35	1 to 4	142
Frequency of contact in the leisure time	t1	1.66	1.05	1 to 4	131
	t2	1.70	1.07	1 to 4	142
Perceived social climate in class: Cohesion	t1	2.46	1.25	1 to 4	141
	t2	2.69	1.24	1 to 4	139
Perceived social climate in class: Wellbeing	t1	3.29	1.09	1 to 4	141
	t2	3.33	1.00	1 to 4	141
Perceived social climate in class: Being insulted	t1	2.09	1.20	1 to 4	141
	t2	2.05	1.20	1 to 4	140

Table 29. Ratings of valence of the MRA attributes based on data collection 1.

	Mean (*SD*)	*N*
nice (MRA +)	1.1 (0.3)	187
neat (MRA +)	1.4 (0.7)	187
honest (MRA +)	1.2 (0.4)	187
dishonest (MRA –)	3.7 (0.6)	187
mean (MRA –)	3.8 (0.5)	187
unfriendly (MRA –)	3.6 (0.6)	187

Note. The response options were 1 (*very good*) to 4 (*not good at all*).

Table 30. Distribution of answers for the MRA-items based on data-collection-1 (t1) and data-collection-2 (t2) data (**longitudinal sub-sample**).

MRA		*German children*	*Turkish children*	*German **and** Turkish children*	*None of the groups*
Nice	grade 3 (t1)	20 (26%)	4 (5%)	48 (62%)	5 (6%)
	grade 4 (t2)	28 (36%)	1 (1%)	43 (55%)	5 (6%)
	grade 5 (t1)	19 (30%)	1 (2%)	40 (63%)	3 (5%)
	grade 6 (t2)	13 (20%)	2 (3%)	43 (67%)	5 (8%)
Neat	grade 3 (t1)	28 (36%)	5 (6%)	42 (54%)	2 (3%)
	grade 4 (t2)	21 (27%)	4 (5%)	40 (51%)	12 (15%)
	grade 5 (t1)	14 (22%)	3 (5%)	42 (66%)	4 (6%)
	grade 6 (t2)	19 (30%)	4 (6%)	34 (53%)	7 (11%)

Table 30 (continued). Distribution of answers for the MRA-items based on data-collection-1 (t1) and data-collection-2 (t2) data (**longitudinal sub-sample**).

MRA		*German children*	*Turkish children*	*German **and** Turkish children*	*None of the groups*
Honest	grade 3 (t1)	32 (41%)	2 (3%)	41 (53%)	2 (3%)
	grade 4 (t2)	32 (41%)	1 (1%)	37 (47%)	8 (1%)
	grade 5 (t1)	20 (31%)	1 (2%)	39 (61%)	3 (5%)
	grade 6 (t2)	16 (25%)	2 (3%)	37 (58%)	9 (14%)
Dishonest	grade 3 (t1)	5 (6%)	21 (27%)	46 (59%)	3 (4%)
	grade 4 (t2)	2 (3%)	17 (22%)	50 (64%)	8 (10%)
	grade 5 (t1)	1 (2%)	14 (22%)	35 (55%)	13 (20%)
	grade 6 (t2)	5 (8%)	17 (27%)	35 (55%)	7 (11%)
Mean	grade 3 (t1)	3 (4%)	24 (31%)	45 (58%)	5 (6%)
	grade 4 (t2)	1 (1%)	29 (37%)	42 (54%)	6 (8%)
	grade 5 (t1)	3 (5%)	21 (33%)	28 (44%)	11 (17%)
	grade 6 (t2)	2 (3%)	21 (33%)	33 (52%)	8 (13%)
Unfriendly	grade 3 (t1)	1 (1%)	25 (32%)	49 (63%)	2 (3%)
	grade 4 (t2)	1 (1%)	28 (36%)	44 (56%)	5 (6%)
	grade 5 (t1)	3 (5%)	13 (20%)	35 (55%)	12 (19%)
	grade 6 (t2)	2 (3%)	21 (33%)	34 (53%)	7 (11%)

11.10 Correlations

Table 31 shows the inter-correlations between the dependent variables. Table 32 shows the correlations between the dependent variables assessed at time 2 and the assumed factors of influence and additional variables assessed at times 1 and 2. Table 33 shows the correlations between the dependent variables assessed at time 2 and characteristics of the school classes (percentage of students with Turkish immigration background in the respective class; ethnic diversity in class, i.e. the number of ethnic groups present in class; cohesion in class; wellbeing in class; and frequency with which respondents were insulted in class).

Table 31. Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Dislike of Germans	time 1	.28**	.03	-.03	-.08	-.00
	time 2	▪	.02	.10	.09	-.01
Dislike of Turkish immigrants	time 1	-.17^{t}	.44***	.17^{t}	.13	.27**
	time 2	.02	▪	.37***	.26**	.55***
Dislike of Italian immigrants	time 1	.08	.21*	.46***	.24**	.20*
	time 2	.10	.37***	▪	.38***	.44***
Dislike of Russian immigrants	time 1	-.03	.15	.19*	.45***	.25**
	time 2	.09	.26**	.38***	▪	.46***
Dislike of people immigrating	time 1	-.04	.18*	.26**	.33***	.34***
	time 2	-.01	.55***	.44***	.46***	▪

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 31 (continued). Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Dislike of people speaking another language	time 1	-.06	.18*	.12	.14	.34***
	time 2	.01	.48***	.31***	.14	.48***
Dislike of immigrants in general (scale)	time 1	-.06	.21*	.21*	.27**	.40***
	time 2	.00	.60***	.43***	.33***	.83***
MRA: positive traits → German children	time 1	-.12	.20*	.16[t]	.04	-.06
	time 2	-.08	.37***	.30**	.07	.22*

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 31 (continued). Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
MRA: negative traits → Turkish children	time 1	-.11	.28**	.07	.19*	.21*
	time 2	-.19*	.28**	.06	.07	.21*
MRA: positive traits → both groups	time 1	.05	-.27**	-.03	-.01	-.16[t]
	time 2	.02	-.30**	-.18*	-.12	-.27**
MRA: negative traits → both groups	time 1	.14	-.08	.04	-.12	-.07
	time 2	.07	-.10	-.03	.03	-.17[t]

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 31 (continued). Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	MRA: positive traits → German children t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2	MRA: negative traits → both groups t2
Dislike of Germans	time 1	-.11	-.12	-.15^{t}	.02	.05
	time 2	-.06	-.08	-.19*	.02	.07
Dislike of Turkish immigrants	time 1	.07	.20*	.28**	-.13	-.09
	time 2	.18*	.37***	.28**	-.30**	-.10
Dislike of Italian immigrants	time 1	.10	.16^{t}	.03	-.07	-.04
	time 2	.12	.30**	.06	-.18*	-.03
Dislike of Russian immigrants	time 1	.04	.04	.17^{t}	-.18*	-.17^{t}
	time 2	.14	.07	.07	-.12	-.03
Dislike of people immigrating	time 1	.15^{t}	-.06	.05	.02	.00
	time 2	.34***	.22*	.21*	-.27**	-.17^{t}

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 31 (continued). Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	MRA: positive traits → German children t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2	MRA: negative traits → both groups t2
Dislike of people speaking another language	time 1	.26**	-.06	.22*	.01	-.10
	time 2	▪	.21*	.20*	-.20*	-.10
Dislike of immigrants in general (scale)	time 1	.24**	-.06	.16[t]	.02	-.06
	time 2	.89***	.21*	.24**	-.27**	-.12
MRA: positive traits → German children	time 1	.21*	.34***	.37***	-.32***	-.24**
	time 2	.21*	▪	.49***	-.73***	-.37***

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 31 (continued). Inter-correlations of the dependent variables based on data-collection-1 and data-collection-2 data (N = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	MRA: positive traits → German children t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2	MRA: negative traits → both groups t2
MRA: negative traits → Turkish children	time 1	.14	.19*	.39**	-.25**	-.30**
	time 2	.20*	.49***	▪	-.55***	-.73***
MRA: positive traits → both groups	time 1	-.18*	-.25**	-.34***	.31***	.27**
	time 2	-.20*	-.73***	-.55***	▪	.54***
MRA: negative traits → both groups	time 1	-.03	-.06	-.23**	.14	.28**
	time 2	-.10	-.37***	-.73***	.54***	▪

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05

Table 32. Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Cognitive	time 1	-.19 (71)	.09 (71)	.04 (71)	.00 (71)	.06 (71)
stage ◈ (*N*)	time 2	.10 (93)	-.15 (93)	-.01 (93)	-.04 (93)	.01 (93)
Intergroup	time 1	.08 (95)	-.34** (95)	-.13 (95)	.02 (95)	-.27**(95)
similarity	time 2	-.09	-.31***	-.29**	-.09	-.29**
(time 1: ◈)						
Empathic	time 1	–	–	–	–	–
perspective	time 2	-.11	-.24**	-.36***	-.25**	-.28**
taking						
Descriptive	time 1	.02	-.02	.01	.11	.06
norm	time 2	-.12	.25**	.18*	.10	.34***
Friends'	time 1	-.08 (70)	.22^{t} (70)	.07 (70)	.00 (70)	-.05 (70)
mean dislike	time 2	.07 (89)	.31** (89)	.12 (89)	.26* (89)	.09 (89)
of Turkish						
immigrants						
◈ (*N*)						

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Friends' mean dislike of immi-grants ◈ (*N*)	time 1	-.12 (70)	.42***(70)	.17 (70)	.29* (70)	.21^{t} (70)
	time 2	.05 (89)	.08 (89)	-.06 (89)	.19^{t} (89)	-.02 (89)
Turkish friends	time 1	.10	-.32***	-.12	.00	-.13
	time 2	.18*	-.38***	-.13	-.04	-.12
Other immigrant friends	time 1	.09	-.17^{t}	-.07	.00	-.11
	time 2	.04	-.16^{t}	-.11	-.09	-.09
German friends	time 1	-.11	-.11	-.03	-.04	-.04
	time 2	-.06	.07	.05	.12	.20*
Contact at school	time 1	-.05	-.20*	-.08	-.02	-.10
	time 2	.01	-.25**	-.07	-.03	-.12
Contact in leisure time	time 1	.03	-.14	-.02	.03	-.04
	time 2	-.15^{t}	-.24**	-.19*	-.12	-.06

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Indirect contact (Turkish) ◈ (*N*)	time 1	.03 (70)	-.23[t] (70)	-.25* (70)	.00 (70)	.02 (70)
	time 2	.04 (90)	-.28** (90)	-.14 (90)	-.04 (90)	-.15 (90)
Indirect contact (other) ◈ (*N*)	time 1	-.14 (68)	-.16 (68)	.09 (68)	-.15 (68)	-.15 (68)
	time 2	.14 (90)	.09 (90)	-.05 (90)	.04 (90)	.00 (90)
Identifica-tion (glad)	time 1	.04	.02	.11	.01	.04
	time 2	-.13	-.02	.06	-.08	.00
Identifica-tion (important)	time 1	.09	.19*	.27**	.10	.19*
	time 2	-.15[t]	.17[t]	.17[t]	.23**	.26**

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
Prefer similar others	time 1	–	–	–	–	–
	time 2	.04	-.07	.03	-.01	-.06
Open to the new	time 1	–	–	–	–	–
	time 2	.01	-.37***	-.25**	-.31***	-.46***
Know peers' ethnicity	time 1	–	–	–	–	–
	time 2	-.03	.00	-.02	.00	-.06
Talk about peers' ethnicity	time 1	–	–	–	–	–
	time 2	.03	.01	-.10	.01	.06
Peers' ethnicity important	time 1	–	–	–	–	–
	time 2	-.05	.21*	.16^{t}	.23*	.22*

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	Dislike of immigrants in general (scale) t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2
Cognitive	time 1	.03 (71)	.05 (71)	.21[t] (71)	-.27* (71)
stage ◈ (*N*)	time 2	.01 (93)	.02 (93)	.12 (93)	-.06 (93)
Intergroup	time 1	-.19[t] (95)	-.26* (95)	-.19[t] (95)	.22* (95)
similarity	time 2	-.26**	-.31***	-.22*	.18*
(time 1: ◈)					
Empathic	time 1	–	–	–	–
perspective	time 2	-.26**	-.31***	-.10	.23*
taking					
Descriptive	time 1	.00	.03	.08	.05
norm	time 2	.18*	.29**	.32***	-.26**
Friends'	time 1	.07 (70)	.02 (70)	.04 (70)	.05 (70)
mean dislike	time 2	.04 (89)	.08 (89)	.14 (89)	.01 (89)
of Turkish					
immigrants					
◈ (*N*)					

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	Dislike of immigrants in general (scale) t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2
Friends' mean dislike of immi-grants ◈ (*N*)	time 1	.27* (70)	.28* (70)	.09 (70)	-.04 (70)
	time 2	-.03 (89)	-.03 (89)	.14 (89)	.07 (89)
Turkish friends	time 1	-.11	-.14	-.05	.10
	time 2	-.02	-.08	-.06	.01
Other immigrant friends	time 1	-.28**	-.23**	-.04	.09
	time 2	-.12	-.13	-.09	.02
German friends	time 1	-.18*	-.13	-.14	.24**
	time 2	-.09	-.16^{t}	-.10	-.05
Contact at school	time 1	-.11	-.12	-.08	.11
	time 2	-.15^{t}	-.16t	-.04	-.13
Contact in leisure time	time 1	-.13	-.11	-.03	-.02
	time 2	-.13	-.12	-.02	-.01

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	Dislike of immigrants in general (scale) t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2
Indirect contact (Turkish) ◈ (*N*)	time 1	-.10 (70)	-.05 (70)	-.01 (70)	-.07 (70)
	time 2	-.10 (90)	-.15 (90)	-.02 (90)	.13 (90)
Indirect contact (other) ◈ (*N*)	time 1	-.11 (68)	-.15 (68)	-.24^{t} (68)	-.27* (68)
	time 2	.00 (90)	.00 (90)	.22* (90)	-.21^{t} (90)
Identification (glad)	time 1	.19*	.14	.12	.00
	time 2	.12	.07	.08	-.04
Identification (important)	time 1	.24**	.25**	.03	-.06
	time 2	.18*	.25**	.27**	-.20*

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 32 (continued). Correlations of the dependent variables assessed at data collection 2 with the assumed predictor variables assessed at data collections 1 and 2 (*N* = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	Dislike of immigrants in general (scale) t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2
Prefer similar others	time 1	–	–	–	–
	time 2	.03	.05	.19*	.04
Open to the new	time 1	–	–	–	–
	time 2	-.41***	-.50***	-.27**	-.18*
Know peers' ethnicity	time 1	–	–	–	–
	time 2	-.06	-.07	.02	-.01
Talk about peers' ethnicity	time 1	–	–	–	–
	time 2	.10	.10	-08	-.01
Peers' ethnicity important	time 1	–	–	–	–
	time 2	.06	.15[t]	.27**	.07

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05. ◈ Missing values were not replaced in this variable.

Table 33. Correlations of the dependent variables assessed at data collection 2 with the class-characteristics (*N* = 127; **longitudinal sub-sample**).

		Dislike of Germans t2	Dislike of Turkish immigrants t2	Dislike of Italian immigrants t2	Dislike of Russian immi-grants t2	Dislike of people immi-grating t2
%Turkish classmates		-.06	.02	-.03	.15	.11
% German classmates		.06	.00	-.07	-.04	-.15^{t}
Ethnic diversity		.06	.06	.13	.17^{t}	.19*
Cohesion of the class	time1	.10	.05	-.07	-.04	-.08
	time 2	.12	.02	-.07	-.10	-.07
Wellbeing in the class	time1	.07	.11	.08	-.01	.04
	time 2	.00	-.15	.00	-.13	-.22*
Being insulted in class	time1	.01	-.05	-.02	.10	-.01
	time 2	-.01	.08	.00	.10	.10

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05.

Table 33 (continued). Correlations of the dependent variables assessed at data collection 2 with the class-characteristics (*N* = 127; **longitudinal sub-sample**).

		Dislike of people with other language t2	Dislike of immigrants in general (scale) t2	MRA: negative traits → Turkish children t2	MRA: positive traits → both groups t2
%Turkish classmates		.15[t]	.15[t]	.15	-.12
% German classmates		-.04	-.11	-.14	.20*
Ethnic diversity		-.01	.09	.12	-.15[t]
Cohesion of the class	time1	-.01	-.05	.06	.12
	time 2	.00	-.04	.07	.14
Wellbeing in the class	time1	.04	.04	-.03	-.03
	time 2	-.18*	-.23*	.01	.07
Being insulted in class	time1	.11	.08	.11	.07
	time 2	.00	.06	-.07	.01

Note. Missing values replaced by EM-estimates. *** indicates p < .001, ** indicates p < .01, * indicates p < .05.

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